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PRESIDENTE RIVERA OIL SPILL

HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

THE OIL SPILL FROM THE *PRESIDENTE RIVERA* IN THE DELAWARE RIVER, ITS EFFECT, MEASURES USED TO CLEAN UP THE SPILL, AND PLANS TO RESPOND TO SPILLS IN THE FUTURE

JULY 17, 1989—PHILADELPHIA, PA

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THE *PRESIDENTE RIVERA* OIL SPILL

MONDAY, JULY 17, 1989

House of Representatives,
Subcommittee on Oversight and Investigations,
Committee on Merchant Marine and Fisheries,
Philadelphia, PA

The Committee met, pursuant to notice, at 9 a.m., in the Multipurpose Room, U.S. Coast Guard Marine Safety Office Building, 1 Washington Avenue, Philadelphia, Pennsylvania, Hon. Thomas Foglietta (Chairman of the Subcommittee) presiding.

Members present: Representatives Borski, Carper, Foglietta, Saxton, and Weldon.

Staff present: Phillip Rotondi, Peter Marx, Chris Dollase, Mike Haas, and Brook Ball.

STATEMENT OF HON. THOMAS M. FOGLIETTA, A U.S. REPRESENTATIVE FROM PENNSYLVANIA, AND CHAIRMAN, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

Mr. Foglietta. The Subcommittee on Oversight and Investigations will come to order.

I apologize for being a few moments late this morning. As you can hear, I have lost part of my voice with some sort of laryngitis. I tried to doctor that this morning so I would be able to speak through this hearing. It may be to the advantage of the people of the city of Philadelphia and throughout the area that I lose my voice; I do not know about that. I think I may have to depend somewhat on my colleagues to help me along this morning.

It has been said that the rivers and the waters of the earth are a treasure, a treasure that we must protect. Today we hold a hearing on still another assault on this earthly treasure. We are here to examine the *Presidente Rivera*'s grounding and the spillage of 300,000 gallons of heavy industrial oil into the Delaware River, and we are here to review the effectiveness of our response to that spill: what went wrong, what went right, and what we can do to better prepare ourselves for future accidents of this type.

This most recent oil spill occurred on June 24, a few miles to the south of us, here along the Delaware River. While the *Presidente Rivera* was still traveling at five knots toward its destination at Marcus Hook, the crew inadvertently dropped anchor. The effect, according to one of today's witnesses, Captain Paul Ives, was like, "stepping on the leash of a running dog." The *Presidente Rivera* went out of control. But there is much more to this story than human or mechanical error. There is also the story of industry responsibility and federal priorities, and it is a story of broken promises.

For years the oil companies and their shippers have made promises, promises that the oil could be shipped with little risk through our most environmentally sensitive waters, that industry sponsored cooperatives around the country would clean up spills quickly, thoroughly and effectively. Again and again these promises are broken.

But there is plenty of blame to go around and much of it should go to the federal Government. For too long government has crossed its fingers and accepted the promises of the oil industry even after repeated spills, even after it was painfully obvious that our current system of preventing and responding to oil spills was inadequate.

It is obvious that we lack a clear federal strategy. We still have not passed a comprehensive law to address the industry's financial liability for oil spills. We still have not developed reliable contingency plans to ensure that the proper equipment and technology are available. We still have not made the necessary investment in research and development. By consistently failing to meet this challenge, we have raised the stakes for our environment and for our future.

We are here today to identify steps that need to be taken by the private sector and by the federal Government. Knowing that oil spills will continue to happen, we have two responsibilities: to minimize the natural human and mechanical factors contributing to accidents and to minimize the potential for damage once an accident occurs.

But make no mistake about it, it is time to reclaim our rivers and our oceans from the negligent shippers, from the ocean dumpers, the medical waste junkers, the polluters, and lackluster federal enforcement.

We can recover from the tragedies on Prince William Sound, Narragansett Bay, and the Delaware River. We must use the momentum for recent tragedies to protect the waters of America, and we must make the most of this opportunity.

I recognize the distinguished gentleman and a Member of the Merchant Marine Committee from New Jersey's Thirteenth Congressional District, serving as the Ranking Minority Member today, Congressman Jim Saxton.

STATEMENT OF HON. JIM SAXTON, A U.S. REPRESENTATIVE FROM NEW JERSEY

Mr. SAXTON. Mr. Chairman, thank you very much. I want to express my appreciation to you for holding this hearing today. It is a subject which many of us have been vitally interested in, particularly those who represent portions of this area.

I would like to begin by praising those who were involved in the cleanup effort of the Delaware River for their very dedicated effort which they put forth in trying to bring this oil spill under control and get it cleaned up as quickly as possible, particularly Captain Larry Murdock, who was most cooperative with all of us, as well as representatives of the industry.

However, having said that, we would not be here today if we were totally satisfied with the federal effort, with the laws that are in place and the procedures that are in place which are mandated by Congress, by the EPA, by the Coast Guard, or by the industry.

I would have preferred to have waked on the morning of June 25 and heard that the Phillys were going to play that night; heard the weather report, that it was going to be a nice day. We did not hear that.

I would also have preferred to have heard something like this: "An oil spill occurred in the Delaware River last night. The Uruguayan ship, the *Presidente Rivera* ran aground near Marcus Hook, spilling 300,000 gallons of oil. Booms were immediately installed, corralling the spilled oil." We did not hear that either.

The last few months have been a real learning experience for us and a real learning experience for the Coast Guard, a learning experience, I believe, for the industry and shippers. Prince William Sound on March 24, 1989, taught us some lessons. Narragansett Bay, Galveston, Texas, and Delaware River provided opportunities to learn more lessons within one twelve-hour period and days and weeks to follow, beginning on June 21. We have learned a great deal, and today we are here, not to fix blame on anyone, but attempt to determine how we can together avoid future accidents and how to more effectively deal with them when they occur.

I had the opportunity in April—it was April 27, as a matter of fact—to address the Philadelphia Maritime Society at their annual dinner. During remarks I made that evening, I said, "It was on March 21, 1989, just a little over one month ago"—at that time—"that the pilot of the *Exxon Valdez* retired from his post, turning the Alaskan-based supertanker over to a third mate for what would be expected to be a routine trip through Prince William Sound. The reports from Alaska that have followed have jarred all of us. The fact of the matter is that the disaster in Alaska has led us to another awesome discovery here in the Delaware Valley, namely, that the same thing can happen here."

I continued, "Well, lightning struck in Prince William Sound, and we should be prepared for that one-in-a-million chance that it can strike here as well. But, as far as I can see, after an examination of our readiness, we are flat out not ready in the Delaware Valley either."

Shortly after that time, I met with individuals from the American Petroleum Institute and discussed with them some remedies that we might look at in terms of avoiding future spills and making us more effective and ready to clean them up. Following our meeting, the American Petroleum Institute issued this report, which came out on June 14, ten days before the oil spill here in the Delaware River, and they concluded, among other things: "The industry"—this is the oil institute concluding—"the oil industry has neither the equipment nor the response personnel in place and ready to deal with catastrophic tanker spills. If, for the sake of targeting catastrophic response capability, a 30,000 ton or 216,000 barrel spill is contemplated, the industry is not prepared anywhere along the coastal U.S. to deal with a spill of this size."

More evidence that, hopefully, the industry is on its way or has come to the recognition that we all need to work together.

From the Department of Environmental Protection in New Jersey, you are going to hear from a gentleman today by the name of Stan Delecate. One of the things he is going to say is, after reviewing what happened in the Delaware River, his testimony is going to include a statement which says, "The mechanisms to put into place the resources and nature of expertise needed to deal with major oil spills are just too slow."

So we have recognized some problems. We have recognized that we are not always ready, and in the Delaware Valley in particular.

I would point out three areas that I believe we should concentrate on today. The first is prevention. What was it that caused the spill here and in Narragansett Bay and Galveston, Texas, and Prince William Sound?

One of the theories that I have heard espoused here by people who seem to know what they are talking about, is that perhaps the crew on the *Rivera* coming up the river was fatigued and overtired. Perhaps we need to look at ways to remedy that.

We have heard talk about vessel traffic systems. We have heard talk about tug assistance in certain areas of the river. There are at least legitimate questions to discuss.

Second, Congress is currently dealing with a bill, H.R. 1465, to provide money for oil cleanup and compensation. The focal point of the bill is the delineation of removal costs and damage for which compensation would be paid.

Finally, a third area that we ought to look at, I believe, is operational procedures. We have been told by the industry over and over again, and in some cases by the Coast Guard, that we were ready for major oil spills. Today, it has been clearly demonstrated that we are not.

So I look forward to this hearing today. I look forward to hearing testimony from the various witnesses who are of interest, who have been involved, and I certainly stand ready and hope that today will be an additional learning experience that will help us gain new ideas and new insights and to refine old ones as well.

Thank you, Mr. Chairman.

Mr. FOGLIETTA. I thank you, Congressman.

Delaware was the state which was most affected by the *Presidente Rivera* spill. I know that Congressman Carper has been one of the leaders on our Committee on clean water issues. I therefore am pleased to recognize Congressman Tom Carper of Delaware.

STATEMENT OF HON. THOMAS R. CARPER, A U.S. REPRESENTATIVE FROM DELAWARE

Mr. CARPER. Mr. Chairman, thank you. It is good to be back in your district. We appreciate your scheduling these hearings and giving all of us an opportunity to testify.

While, I am sorry to hear about your laryngitis, I think probably the more important thing—and that can be a serious liability for any politician, as we all know—but I think the more important thing for us on this side of the table today, is not so much to be able to speak clearly, but to able to listen well. I welcome the chance to hear from Senator Lautenberg, our Governor, and a whole host of other witnesses today.

Mr. Chairman, over the past two decades there has been a concerned effort to reverse the environmental deterioration of the Delaware River and its estuary. The fruits of that labor are, I believe, readily apparent. The river is for the most part cleaner today than it has been at any time in my memory.

But the decade of the '80s has brought a new threat. An unprecedented number of major oil spills on the Delaware have dumped hundreds of thousands of gallons of oil into the river and onto its banks.

In the last four years, there have been four major oil spills on the Delaware River. I do not know how that stacks up with other major shipping channels that transport oil, but if the Delaware is not the most spill-prone river in the country, it soon will be.

I take little comfort in our extraordinary luck with the spills we have experienced in the 1980s. Environmental damage, while considerable, has not been catastrophic. Sensitive wildlife refuge areas like Prime Hook in Delaware, have been spared. Economic damage, despite the lack of a uniform federal policy for oil spill liability, has been manageable.

But rather than continue to rely on good fortune, I believe this hearing affords us an opportunity to begin to understand why the Delaware has been the victim of this rash of spills and what could be done to reduce the chance of future spills.

An ounce of prevention is worth a pound of cure, or so the old saying goes. In this case, an ounce of prevention may save us a million gallons of runaway heating oil racing down the Delaware.

But even with additional preventive measures, the threat will remain. As long as our nation continues to rely so heavily on oil, much of it imported, to satisfy our insatiable thirst for energy, we will also need to rely on the tankers that carry oil up and down the Delaware.

You do not have to be a fortune teller to be able to predict that there will be another oil spill on this river. It may happen today. It may happen this week. It may happen this month. But it will happen and we need to be prepared for that.

The cleanup of the *Presidente Rivera* spill left some serious questions in the mind of many of us about how prepared we are to respond to spills on the Delaware River. Alarmingly slow response time, manpower shortages, and an apparent lack of contingency planning for this type of spill led our Governor, Mike Castle, to call out the National Guard in frustration.

While we are not here to assess blame, last month's spill revealed some obvious shortcomings in our planning and in our response capabilities.

I look to forward to hearing today's witnesses to tell us how we can address these shortcomings. As the lone Congressman from the state which has borne the brunt of this and a number of other spills, I stand ready to pursue whatever congressional action may be necessary to improve the current federal response system.

Again, Mr. Chairman, thank you for holding these hearings. We look forward to the witnesses that are to come.

Mr. FOGLIETTA. I thank you, Congressman.

Joining us today also is a Congressperson from the adjoining county who has been extremely concerned about issues affecting the port of the city of Philadelphia and the Delaware River itself. I am very happy to have here with us today Congressman Curt Weldon of Delaware County, Pennsylvania's Seventh District.

Curt, I would like to welcome you and ask you if you have an opening statement.

STATEMENT OF HON. CURT WELDON, A U.S. REPRESENTATIVE FROM PENNSYLVANIA

Mr. WELDON. Thank you, Mr. Chairman.

I would also applaud you and my colleagues on the Merchant Marine Committee for your foresight in scheduling this hearing and your involvement in the ongoing concerns that we have relative to oil spills and our ability to respond to those situations.

I am here not just as a Member of the Merchant Marine Committee, but also as someone who was the former chairman of the Delaware County Council responsible for the government of that county and its relationship to the Delaware River. As someone who spent five years as the mayor of Marcus Hook and who was involved in a number of incidents related to the oil industry and very specifically, I spent three days in a very serious incident that I will talk about, back in 1975, the collision of two major tankers on our river. As a matter of fact, I wrote a book about that incident and would like to enter that for the record today because of the eleven recommendations that we made back in 1975. Five of them specifically pertain to the kinds of shortcomings that we saw in this incident, and we still have not heeded the advice of these past lessons that we should have learned.

[The book was placed in the record files of the Subcommittee.]

Mr. WELDON. Also, being very interested in the issue of oil spill, I traveled with a Secretary Manuel Lujan, Congressman Don Young, Senator Murkowski, and Senator Stevens to Alaska and spent five days in Prince William Sound observing what happened in that area, talking to Exxon corporate officials, the Coast Guard, and getting a firsthand feel for what happened with the *Valdez*, why it occurred, and what could be done to prevent and minimize those types of incidents from occurring in the future.

There are some similarities and there are some key issues that I hope will be focused on in this session today. Unfortunately, I will not be able to stay for the entire session because of commitments back in my district. But I would like to touch upon these and hopefully my colleagues can pick them up during the questioning opportunity that will occur today.

Number one is that we need to make sure that we have the adequate preplanning in place to deal with all eventualities in situations that we saw with the *Rivera*. That means being able to adapt to the type of fuel that, in fact, is being exposed to our waterways. In this case I think we were not prepared for that. It was a type of fuel that we just were not prepared to handle, at least in an aggressive immediate fashion.

That preplan must be signed off by everyone, and I think it must have contingencies in place to deal with the various types of fuels or chemicals that, in fact, could be spilled on the river.

The second is that we need to have the resources to implement the plan. We cannot be worrying where to find the manpower after the incident occurs.

I spent three and half hours on the Delaware on Sunday afternoon following the incident down in the area between the Bellview range and the Marcus Hook range. In a two-mile direction in all directions, up the river, down the river, and across the river, we did not see one ship or, in fact, any individuals working to clean up in a manual way the very large deposits of gook—for lack of a better word—that we saw dotting the river, and there were hundreds of them. We saw no one.

I think it was a case—and I talked to Captain Murdock about this—of not knowing where to get the people to do the physical cleanup that was necessary in this type of a situation.

I think we also need to look at some rumored occurrences early on in the spill that led me to believe that there were certain contractors who did not want to commit their vehicles or their equipment to clean up the spill until they were guaranteed they would be paid. That should never be a concern that is raised once a spill occurs. If we have ships, if we have barges, if we have personnel available, we should be able to mobilize them immediately and not have to go wait for clearances up the chain of command in a corporate scenario, if that be the case. I think that needs to be looked at.

Let me say, and I do want to cast a positive light on the one aggressive effort that we had early on and that was the very quick mobilization provided by the Del Bay Coop. I think we are unique in the country in having Del Bay Coop in place where industries have gotten together prior to these types of disasters and have planned what they could do before an incident occurs, like the Rivera. The Del Bay Coop plan went into effect immediately. I think it had a positive impact on the overall success of cleaning up the oil, and the ship itself was put into place right away.

But once again, the Del Bay Coop vessel that was used was not suited for the type of oil that we were dealing with. I saw the clogging that occurred regularly between those grates on the front of the Del Bay Coop, because the type of sludge that we are trying to pick up was just too heavy and thick to be sucked up quickly by that vessel. That needs to be thought out in advance of an incident occurring.

The third point is that we need to have one person in charge. I think we did have that here, and let me take a moment to extend a word of congratulations to Captain Murdock. I believe he was on the scene less than one day when the incident occurred. He had to implement someone else's plan. From what I saw, even though there were some shortcomings, he did yeoman's effort in putting together a massive response with limited resources.

I say "limited resources" because the fourth point I want to make is that we in Congress have cut the Coast Guard. We have taken away manpower and resources that are necessary to monitor environmental legislation and laws and enforce those, to go on board and inspect foreign-flag vessels to make sure they comply with our safety standards.

So I think in this case we had the one person in charge, and from what I saw, he did a commendable job. I talked to him perhaps four or five times in the early stages of the incident. So I think, unlike the situation in Alaska, we did have that one person responsible for handling the incident.

A fifth point I would like to make, which is a national problem that we have, is that we do not have adequate research. We do not know what the best techniques are to clean up oil spills. We saw that in Alaska where we were actually out there in Prince William Sound testing different types of techniques, coagulants, dispersants, whether to burn off part of the product, whether to boom and skim. We should know those kinds of answers up front. I feel we as a nation have not done enough to prepare ourselves in terms of the research into the types of techniques to deal with the varying types of oil spills that, in fact, will occur in our waterways.

The sixth point that I would like to make is that we need to get our oil fund liability legislation that was just reported out of our Committee passed by the Congress and signed into law by President Bush. Hopefully, that will happen during this session.

The seventh point is that we need to look at the possibility of requiring ships that travel in our waterways to have their own booming available to put out immediately to control the spill once it occurs until we can get a rapid response team in place. This specific measure is contained in a bill that Congressman Don Young and I introduced when we came back from Alaska to require ships to have booms in place, on board, so that they can take immediate steps until a response team can arrive on the scene.

The last point that I think we need to look at is to require control of ship movement on our waterways, one of the recommendations we made back in 1975. Imagine, if you will, twelve thirty at night, a cold January 28 winter morning, a 770-foot long oil carrying tanker is docked at the British Petroleum Refinery in Marcus Hook, headed upstream. Across the river—and the river is a mile wide at that particular point—we have a 660-foot long American-flag vessel, the *Edgar M. Queeny*, heading downstream. At twelve thirty in the morning she begins to make a U-turn in the river. She rams the *Corinthos* broadside, docked at the BP dock.

This is not a fictional story. It is real. It happened in the Delaware River. It happened in our port and we still have not learned the lessons from that incident today. In that case, 29 people were killed, 28 on board the *Corinthos*, 1 on board the *Queeny*, almost $100 million of property damage was done by the fire and explosions themselves, and a tremendous amount of environmental damage. If that ship had not caught fire, you would have had an unbelievable environmental incident on the river. Because of the fire, the bulk of the oil, the 300,000 barrels that were in the *Corinthos*, burned off over a period initially of three days for a total of two weeks before it finally burned itself out. We need to look at whether—and I know the Senator is going to make this point in his comments—we need to look at whether the Delaware River, the second busiest oil port in America, needs to have a sophisticated ship-monitoring system in place similar to that which I believe Seattle has. We looked at Seattle back 14 years ago, and I think if we have a river and a port that is as aggressively traveled as ours is, that certainly is something we need to take into consideration. I would appreciate hearing from the Coast Guard on that issue.

Finally, in summation, let me make two final points. One is a special emphasis in point for the Coop. The Del Bay Coop, unlike other areas of the country, allowed us to have a plan and a process in place. That needs to be pointed out and highlighted. It is a positive success story provided by industry in the area.

Secondarily, I think we need to realize that it is not just the standpoint of environmental pollution that we are concerned about, although that is the major focus for this hearing. I am concerned that we are naked in the river when it comes to an explosion or a fire or a major disaster.

My colleagues on this panel have been working for the last year in cooperation with the Marine firefighting task force, consisting of emergency service personnel from all three states, in trying to put together an aggressive plan to deal with disasters that are waiting to happen. We need to implement that plan. We need to provide the resources. We need to be ready, not just for oil spills, but for all of the emergency situations that can and will occur in the ports of Philadelphia on out into the Delaware Bay and the Atlantic Ocean.

I thank my colleagues for their interest, and I thank all of those people who will be testifying today.

Once again, I apologize for not being able to stay with you, Mr. Chairman.

Mr. FOGLIETTA. I thank you, Congressman.

Our first witness today is the distinguished Senator from New Jersey, Senator Frank Lautenberg.

Senator, we welcome you to the First Congressional District of Pennsylvania. Before you begin, however, I would like to note that the Senator is chairman of two Senate subcommittees important to oil prevention and response. Number one, the Subcommittee on Superfund Ocean and Water Protection of the Environment and Public Works Committee and the Transportation Subcommittee of the Appropriations Committee.

I note, too, that already you have begun to act on this issue. You have introduced a bill requiring Coast Guard review of local contingency plans and a bill to study the need for a vessel traffic system. This just shows the people in this area of the United States that you are on this issue, you are ready to go with it, you are concerned about it, and we certainly look forward to your testimony today.

STATEMENT OF HON. FRANK LAUTENBERG, A U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Thank you very much, Mr. Chairman, for the introduction and the reminder that you have given all of us about the responsibilities that we have in our region, in our country, to make certain that we in the Congress and we in government are doing our job. I commend you in your maintenance of your oversight responsibilities in this regard, because it is important. We now realize how important it is, because we have seen how time and time again that oil spills can and do happen close to home, not just in far off places like Alaska.

I think, Mr. Chairman, your opening remarks, you said that we can recover from these accidents. Maybe so, but the questions are still unanswered.

It is easy to point fingers and try to fix blame. That is important as well, because while industry has enormous responsibilities in matters like this, we in the federal Government have the ultimate responsibility for seeing that our environment is protected, for seeing that our citizens live in safety, and that as we energize our country, that we do not do it at the expense of an environment that we all treasure and want to have as a legacy for generations to follow. So what we have to do is find out how, why these spills happen, what we can do to prevent them from happening again.

On March 24, the eyes of the country were riveted on Alaska as we witnessed the terrible environmental disaster of the *Exxon Valdez* spill. I was up there within a couple of days after the spill occurred, and what I saw was a crime. Not the kind of crime that we see committed in offices or situations around the country where someone holds a gun to someone's head, robs them of their belongings, sometimes their life. This was a crime in every sense of the word. A pristine and beautiful area, unlike almost any other in this country, was devastated. The effects likely will linger for decades.

I just returned a week before last from a second trip up there. I wanted to see what the progress was like. I would have to tell you, Mr. Chairman, that the effects of that oil spill are going to last way beyond the lives of almost anybody in this room, no matter how young. In some cases the oil residuals have penetrated the earth over three feet. Exxon is working very hard to correct the situation, and a lot of the recovery that is going to take place perhaps has taken place. But a lot of the damage will last, as I said, for years into the future.

I walked the beaches, slipping from rock to rock, because they were still covered with slime and what is called "moose" up there. It is a convenient expression, because that material is still all over the place, and they never know where it is going to show up next.

If you look at the distance that was covered by this slick, by this spill, it runs on a comparative basis from Maine perhaps down to the Carolinas. That is how far it traveled. If it had been an earthquake, that spill would have registered at 10 on the Richter Scale.

Then on June 24, three months later, we here felt an aftershock, a tremor of our own. The *Presidente Rivera* spewed over 300,000 gallons of oil into the Delaware. It threatened sensitive areas in New Jersey, Pennsylvania, and Delaware. But in some perverse ways, we were lucky. While the ships cargo was 18 million gallons, only a small percentage was lost. The weather was cooperative. The spiller accepted full responsibility. The environmental impact could have been much worse.

But the *Presidente Rivera* reminded us that spills on the Delaware, as elsewhere, have become all too company, almost too ordinary. The Delaware River is the single largest point of entry for foreign oil into the United States, yet 364 million barrels annually ship into this port. According to a Coast Guard report, 46 tankers along with 170 other ocean-going vessels use this waterway each month.

The volume of traffic, however, has not come without cost. Between 1980 and 1986—Mr. Chairman, I need to tell you; this is your home territory; you are very much aware of these things—there were 102 separate incidents on the Delaware involving vessels carrying oil. That comes out to 15 a year, more than one a month. Since 1985 we have suffered five spills, each one over 100,000 gallons.

Now, you do not have to be a genius to recognize that we need change. By examining the incidents that have occurred, we can hope to figure out what changes will produce the best result.

Now, I asked the Coast Guard to assess the need for a VTS system, vessel traffic control system, on the Delaware. If it can reduce the threat of spills, we should have it, because everyone knows that as long as we transport materials—and oil is a hazardous material, perhaps more hazardous than most, because it has the capacity to permeate way beyond the distances from the point of occurrence—as long as we transport it, we are going to have problems. We ought to do whatever we can to prevent them. Mr. Chairman, that VTS system may help prevent spills. That is only one part of the solution.

Another is to make sure that we respond to the spills when they do occur. As was the case with the *Valdez*, the response here—and it was a good job by lots of people, including the Coast Guard—the response was flawed. The first booms brought in were inadequate. They did not contain the spill. Precious time was lost.

If we have learned anything in the last three months, we have learned that the first few minutes, the first couple of hours, are the most critical period in fighting a spill. Someone should have known that the equipment was inadequate before it was called upon to be used. Someone should have looked into the contingency plan and said that we needed to be prepared for this kind of an incident, that we needed to have that equipment on hand. Unfortunately, no one did. That someone must be the Coast Guard.

Now, I have introduced legislation, as you mentioned, that would give the Coast Guard the authority and the responsibility to look at local contingency plans and give it their stamp of approval if they think they meet the test. Where changes are necessary, the Coast Guard could require it. The responsibility for the cleanup of a spill lie with those who did it. But the federal Government has to make sure that the job can and will be done right. They are the ones who give the final signoff.

Mr. Chairman, in New Jersey we have made great strides to clean up our waters, but an oil spill can wipe out all that progress. At a hearing last week, a fish and wildlife official that just one week before the *Presidente Rivera* spill—and perhaps those of you from the immediate vicinity might know this—found a new active breeding ground for striped bass right near Marcus Hook. But with this spill, that is likely gone.

Mr. Chairman, we cannot sit by and let this kind of devastation happen. The fact that there were incidents years ago that should have alerted us to the possibility of the kinds of tragedies that we have seen has not forced us to action; that does not mean that it is too late. We have to get on with the assignment. We have got to do all we can to protect our waters and marshlands, our beaches.

With this hearing and with strong legislation in the Congress, we can do just that.

Among the things that we may be examining in addition to the obvious, like financial responsibility, I asked the Coast Guard whether or not they review the courses of navigation or the shipbuilding specs. You have heard talk about double-hulled bottoms. But maybe we ought to be talking about size limitation on ships that ply these waters. We ought to be looking at crew requirements. What should we be asking of a master of a ship who carries this kind of hazardous cargo? Or, in fact, even who is in charge?

Mr. Chairman, I want to, once again, thank you and the Members of this Subcommittee for holding this hearing. It is timely, it is important, and with any kind of effort on the part of all concerned, we might be able to do those things that will help. If not, as I said earlier, to prevent them, at least reduce the impact when they take place.

In closing, Mr. Chairman, I want to make a comment in response to Congressman Weldon's statement—I am sorry he is not here—about the funding of the Coast Guard.

The Coast Guard continues to get more and more funding. The Administration does not quite ask for enough, because they give Coast Guard assignments more drug fighting, more pollution review, more responsibilities generally, but do not want to provide the necessary resource. Yes, they want to do it, but they want to take it from sources that—things that we need to have in this area, whether it is Amtrak, mass transit, you name it.

I am sorry that the Congressman is not here to hear my rebuttal, because I am the one in charge of appropriations for the Coast Guard. We fight like the devil to get Coast Guard funding, but we are fighting an uphill battle. It is not just upstream, because we do not have the kind of support that we need in order to get this job done.

Thank you, very much, Mr. Chairman.

[The prepared statement of Mr. Lautenberg follows:]

STATEMENT OF HON. FRANK R. LAUTENBERG, A U.S. SENATOR FROM NEW JERSEY

Thank you, Mr. Chairman. I appreciate the opportunity to appear before you today.

This is an important hearing. It's important because we've seen, once again, that oil spills can—and do—happen close to home, and not just far-off places like Alaska.

And it's important because we need to find out how and why these spills happen and how we can try to prevent them from happening again.

On March 24, the eyes of the nation were riveted on Alaska, as we witnessed the terrible environmental disaster of the *Exxon Valdez* spill.

I went to Valdez, and I can tell you, it was a crime, in every sense of the word. A pristine area, unlike any other in this country, was devastated. The effects likely will linger for decades.

If it had been an earthquake, that spill would have registered a "10" on the Richter scale. Then, on June 24, exactly three months later, we felt the aftershock, a tremor of our own.

The *Presidente Rivera* spewed over 300,000 gallons of oil into the Delaware River, threatening sensitive coastal areas in New Jersey, Pennsylvania, and Delaware.

In many ways, we were lucky. While the ship's cargo was 18 million gallons, less than one million were lost. The weather was cooperative. The spiller accepted full responsibility. And the environmental impact could have been much worse.

But the *Presidente Rivera* reminded us that spills on the Delaware, as elsewhere, have become all too common. The Delaware River is the single largest point of entry for foreign oil into the U.S., receiving 364 million barrels annually.

According to a Coast Guard report, 46 tankers, along with 170 other ocean-going vessels, use this waterway each month. That volume of traffic has not come without a cost.

Between 1980 and 1986, there were 102 separate incidents on the Delaware involving vessels carrying oil. That works out to 15 a year, more than one per month. And since 1985, we've suffered 5 spills of over 100,000 gallons.

To my thinking, that indicates that a change is needed. By examining the incidents that have occurred, we can hope to figure out what changes will produce the best result.

I've asked the Coast Guard to assess the need for a vessel traffic control system on the Delaware. If VTS will help reduce the threat of spills, we should have it.

Mr. Chairman, that may help prevent spills. And that's one part of the solution. Another is making sure we can respond to spills when they do happen.

As was the case in Valdez, the response here was flawed. The first booms brought in were inadequate, and didn't contain the spill. Precious time was lost.

And if we've learned anything in the last three months, we've learned that the first few minutes and hours are the most critical in fighting a spill.

Someone should have known that the equipment was inadequate, before it was used. Someone should have looked at the contingency plan, and said "you need to be prepared for this, you need to have that equipment on hand." But no one did.

That someone should be the Coast Guard. I've introduced legislation that would give the Coast Guard the authority—and the responsibility—to look at contingency plans, and approve them. Where changes are necessary, the Coast Guard could require them.

The responsibility for cleaning up a spill should lie with those who did it. But the Federal government should make sure the job can, and will, be done right.

Mr. Chairman, in New Jersey we've made great strides to clean up our waters. But an oil spill can wipe out all that progress. At a hearing last week, a Fish and Wildlife official told us that just one week before the *Presidente Rivera* spill, they had found a new, active breeding ground for striped bass, right near Marcus Hook. But with the spill, that's probably gone.

Mr. Chairman, we can't just sit by and let this kind of devastation happen. We've got to do all we can to protect our waters, our marshlands, and our beaches. With this hearing, and strong legislative action in the Congress, we can do just that.

I thank the Subcommittee, and would be pleased to take any questions you may have.

Mr. FOGLIETTA. As a courtesy to the Congressman from New Jersey and to attempt to preserve my voice throughout this hearing, I am going to ask him to do the questioning of the Senator. However, after the last rebuttal that you have made, in which I am in total agreement, I wonder whether we would continue with that.

But I would like to turn the questioning to Congressman Saxton at this point. If you would like to comment on the last rebuttal, I would certainly appreciate that.

However, before so doing, I see Governor Castle of Delaware standing in the back.

Governor, would you like to come up and sit at the witness table?

Lieutenant Governor Singel of Pennsylvania, would you like to join us also? Rather than have you standing back against the wall, we certainly would prefer having you sitting at the witness table.

Mr. SAXTON. Mr. Chairman, thank you. I appreciate the opportunity to talk with my friend and colleague, Senator Lautenberg, for a minute.

Let me just say welcome to Governor Castle and Lieutenant Governor Singel for being here today. It is a privilege for us to be in your company.

Frank, just as you and I and Tom Carper and our chairman worked diligently for years to get a bill passed and a law in place to control sewage sludge dumping in the ocean, I suspect that we will have a long, hard track to go with regard to this subject as well. I know that you have introduced a bill in the Senate, and I have introduced a bill in the House which, I am sure, are similar in many respects to make us better able to deal with oil spills, not just in the Delaware River, but around the country, in Alaska and Hawaii as well. Hopefully, we will have some international ramifications from our resolve as well.

I just wanted to talk with you for a minute. The House Coast Guard Subcommittee, under the capable leadership of Bill Tauzin, will soon begin to mark up what we refer to in the House as an operational bill; that is, how do we make our operation of cleanups more effective. We recognized, I think immediately, that one of the things that we need to do is to have a nationwide assessment of what we already have in place. Here in the Delaware River it has been mentioned by numerous people that we have a contingency plan in place through a cooperative of oil companies. What we are proposing is a first step, I think, in the House, is to do a nationwide assessment, an inventory, of the things that we have currently available to us.

Has there been thought on the Senate side with regard to that as well?

Senator LAUTENBERG. Congressman Saxton, I am happy to work on those things with you that we both are so concerned about for our state, tiny state, most densely populated in the Union. We regard our natural resources as very precious additions to the quality of life in our state.

On this issue, with working with you and Congressman Hughes and the others in the delegation, we have begun to examine the possibility of having the Coast Guard responsible for all contingency plans, as I said in my formal remarks, and that we want them to signoff. We want them to say, "Okay, here is a program that is going to operate the minute that the gun goes off," so to speak, that everything is in place, that we have sufficient equipment to examine ship design.

There was a suggestion made about having booms aboard.

There is another suggestion I heard made by someone up in Rhode Island, a ship designer, who said that if there is a air collection system that reduces the pressure for this material to exit the ship, that you might be able to slow down the flow.

There are lots of things—you know, in the Congress we have the tendency to design things, and I would love to do it here, sitting here with you this morning—might even ask the Coast Guard their opinion on it. But the fact is that we ought to be looking at all the possibilities.

Our Coast Guard, proud service that it is, has assumed ever more responsibility. They have the capacity; if they do not have the capacity, we owe it to them to give them the capacity to provide that kind of service. So we want them to look at all the contingency plans of all the key areas in the country and say, "This is what you need to keep this place safe and functioning."

Mr. SAXTON. With regard to the response time and the subject of unique conditions, it would seem to me that our legislation might look at a minimum time that we would require the Coast Guard or the industry to be able to respond. Everybody agrees that a rapid response is so vitally important, as it would have been here in the

Delaware River. If we had been capable of responding—we did respond, not effectively, within the first half hour or hour—if we had been capable of responding in an effective way, Governor Castle would not have had to call out the state guard.

A few days later, on Monday following the oil spill, I had the opportunity to fly over, and instead of having a corral around the ship of adequate booms to hold the oil in place, there was a 25-mile slick which stretched from Marcus Hook all the way down to Governor Castle's great State of Delaware. Had that response time, if we had been able to be sure that we had adequate response time in place together with the equipment necessary for unique environmental, geographic conditions, those would seem to me to be key elements of legislation that we might peruse.

Senator **Lautenberg**. Yes, there are a couple of things. First—I am sure we would agree on this, the Coast Guard ought to be the ones responsible for doing the design, once again, as much as we would like to do it here. But it is not just response time, it is personnel, it is the right kind of equipment.

I saw booming equipment used up in the *Valdez* that would take care of a wave condition of maybe one to three feet. Well, when the waves are five and eight feet, the booms do not matter at all.

The question is, what kind of equipment is necessary. How soon can they respond? We would not be sitting here talking about fire department response in the city saying it has to be immediate—we would say it has to be immediate, it has to have the right kind of equipment, the right kind of personnel. That is what we are going to ask the Coast Guard to do, Congressman Saxton. We are going to ask them to be as tough in those plans as those can be.

There was an interesting court decision last week. I assume that most of you noticed it. The fact is that they are saying that companies responsible for these spills have to pay the full freight. I sent a letter to the President asking him to ask of Exxon, not only the incremental cost recovery, but to pay for the amortization depreciation on those ship engines.

We have a major military force up there, 10,000 people at work, some of them with hand towels up on the beach rubbing down rocks, hopefully trying to help animals continue their life.

But it takes a major effort in something like this. I want the companies responsible to have the financial capacity to handle it. A $25 million bond or whatever is peanuts when it comes to an oil spill. I want them not only to have the responsibility but the obligation to pay for everything.

If we have Coast Guardsman or Naval personnel or Air Force personnel up there—they have other things to do or we should not have them on the payroll. While they are busy cleaning up an oil spill, they ought to be paid for it by the party responsible.

Those are the kinds of things that I want the Coast Guard to be looking at, Congressman Saxton, and I am glad to see that you are doing it.

Mr. **Saxton**. I agree with you totally that the Coast Guard ought to be in charge, as Captain Murdock was here in the Delaware River, and that was one of the real success stories here with regard to this oil spill.

But I would go, I think, in one slightly different direction than perhaps you have mentioned at least so far, and that is that while the Coast Guard ought to be responsible for the cleanup, the industry ought to be the funding mechanism. The bill that we have introduced in the House provides for strike teams, if you will, contingency plans, cooperatives, whatever term we want to use, around the country, so that industry would fund these coops, these strike forces—and incidentally have indicated a willingness to do so in the report that the American Petroleum Institute issued on June 14.

So I hope that we can move together in a cooperative way with the Coast Guard in the lead and with industry providing the resources that are necessary on an ongoing basis to provide for adequate cleanup.

Senator LAUTENBERG. My principle position is to have the Coast Guard approve the contingency plans. As to who manages the program, that can be decided also at later date. But I want the Coast Guard to signoff on these things and say, "Here is a plan that we believe is the best that we can put together, the best, or that which is necessary to do the job." That is my mission with that legislation.

I also am pleased to tell you that in the supplemental that I was able to arrange to have the spill fund able to borrow money so that it is available at the moment that it is necessary instead of having to wait for an appropriations process. We have got to get on with this.

Mr. SAXTON. Thank you.

Mr. FOGLIETTA. Congressman Carper, have you any questions for the Senator?

Mr. CARPER. Senator Lautenberg, you and I were both elected to the Congress in 1982. Since that time, over the last seven years, my recollection is that the House of Representatives has passed roughly six times, legislation to replace the patchwork quilt of oil spill liability funds that exist in each of our states, to replace them with a comprehensive national oil spill liability plan, a plan that would provide roughly a penny per barrel for each barrel of oil that comes into this country and could grow to $1 billion. That money would be available for cleanup costs, would be available for compensating those who might be damaged, property owners, businesses, for the loss of their property or the loss of their livelihood.

The money could also be used to be pay for research that might be done by the Coast Guard to find better ways to clean up the oil that is being spilled in our waters.

It can be used to provide booms and other equipment for the Coast Guard to contain the spills.

Six times, as I recall, in the time that you and I have served in the Congress, that legislation has passed the House and has gone to the Senate. Each time it has died. The principle opponent to the legislation is now the Majority Leader of the Senate, Mr. Mitchell from Maine.

My hope, and I think the hope of all of us who serve on this Committee, certainly Mr. Foglietta, Mr. Saxton and I who have worked on this legislation for so long, would certainly like to see it adopted, to pass the Senate.

I believe you may serve on the committee of jurisdiction in the Senate. What can we do, what do we need to do, to help push that legislation—not through the House, we will pass it in the House later this summer, I suspect—but what do we need to do to pull it through the Senate into conference so that we can get a bill on the books?

Senator LAUTENBERG. The point is a good one, Congressman. We have seen lots of programs initiated in these half dozen years affecting the environment. The climate has never been better to get something done now. The American people are up in arms about the environmental destruction that we see around us. The Summit, though it did not come away with anything concrete, at least we had the world leaders announce that environment is a major problem, a major concern of each one of them.

Frankly, I think that George Mitchell—and you may have seen the story in yesterday's paper, or Saturday's paper, about his desire to get oil spill legislation, something different, however, than the Administration's program, but those differences can be ironed out. I think if you fellows—you people on "the other side," as we say in the House—will send over something, you are going to see a lot different response this time than you have seen in the past. I urge you to do it.

Mr. CARPER. We will, thank you.

Mr. FOGLIETTA. Senator, just one short question: the National Oceanic and Atmospheric Administration's scientists tell us that there have been documented accidents involving number six oil in the past. Do you know whether or not the Coast Guard was aware of this and had made adequate preparations for these type of catastrophes?

Senator LAUTENBERG. I cannot tell you that, Mr. Chairman; I do not know.

Mr. FOGLIETTA. Well, Senator, we thank you so very much for being here with us today to express your views and concerns over this problem. It was a honor to have you here; again we thank you.

Senator LAUTENBERG. Thank you, very much.

Thank you, Members of the Subcommittee.

Mr. FOGLIETTA. Governor Castle, we are pleased and honored to have you with us today. We know of your concerns and we also know the action that you took during this last spill which, I am sure, was substantially responsible for not turning into a catastrophe.

I would like to give the honor and pleasure of introducing you to my colleague, Mr. Carper, of Delaware.

Mr. CARPER. Thank you, Mr. Chairman.

I want to welcome our Governor and thank you for your patience in waiting to testify to us today.

Mike Castle is in second term as the Governor of our state. He previously served, as does Mr. Singel, as the Lieutenant Governor of our state. So hang in there, Governor Singel, you will never know what will come of this.

Mike, in addition to serving as our Governor, Lieutenant Governor, has been a state senator and a leader in the state senate. If you read the Delaware newspapers and news journals a couple of weeks ago, you noticed two full-page newspaper advertisements that noted that our Governor was now 50 years old, and he was reported saying during the spill, the cleanup, that he felt every year of that 50 years. But I say you certainly do not look it today.

I want to welcome him, not only as our Governor, but as our friend.

Thank you for joining with us and to share your ideas and counsel.

STATEMENT OF HON. MICHAEL N. CASTLE, GOVERNOR OF THE STATE OF DELAWARE

Gov. **Castle.** Thank you, very much, Mr. Chairman; thank you, very much, Congressman Carper. You did not need to mention my birthday in front of this many people. I am trying to ignore the whole fact.

I am very pleased to be here today, and I am grateful for the opportunity to testify on the oil spill which fouled our river just a few short weeks ago, threatening irreversible harm to fragile natural areas along the Delaware. The incident reinforces my belief that the potential for environmental disaster in the Delaware Estuary is great, and that too few safeguards exist to prevent large-scale damage.

Each year, roughly 400 million barrels, 16 billion gallons, of crude oil and petroleum products are transported on the Delaware. Measured by volume of traffic, the Delaware River is the second busiest port in the nation. Although we have the ability to enforce certain basic navigation rules and control the piloting of vessels north of Cape Henlopen, the transport of petroleum products is largely unregulated and unpoliced.

Our ability to respond quickly and appropriately with adequate manpower and equipment and without unnecessary delay is in doubt.

After the *Presidente Rivera* ran aground on early Saturday morning, there was a significant delay before a full contingent of cleanup personnel and equipment was on the river. Thus a rookery on Pea Patch Island which we endeavor to protect from development and human intruders went unprotected from the spill until the Delaware National Guard troops began cleaning up the oil by hand.

Our ability to proceed against polluters is limited by international law, by admiralty law, and by the simple fact that some shippers are little more than modern day pirates.

A case in point: After a major spill on the Delaware in 1985, a foreign-owned vessel with its name painted out slipped out of port in the dead of night, effectively escaping any financial responsibility for the damage it caused.

Industry must do more to prevent spills and more to clean them up quickly when they occur.

The federal Government must provide laws which facilitate rather than hamper cleanup. I think it is amazing that we must find our way through a Chinese puzzle of lawyers and insurance companies to get action when a spill occurs. I reject the notion that federalization of a cleanup is the option of last resort. In my view, it is the only solution.

Finally, I believe it is incumbent on the states of the region to develop a regional response plan and pool resources so that we have the means to respond quickly when spills occur. That cooperation already exists on an informal basis, as was evident last month. The governors of the states of Pennsylvania, New Jersey, and Maryland helped first and asked questions afterward, offering equipment and technical help as soon as the spill occurred. But I believe it would be in the interest of our states to formalize the relationship, and for the federal Government to formally recognize even loosely formed regional consortiums in cases like this one and give them both responsibilities and a voice in decisions.

The Delaware River spill was only one of three major incidents which occurred on the same weekend. Coming at a time when the nation is still coming to grips with the environmental damage caused by the *Exxon Valdez* spill in Alaska, the June incidents made it clear that more needs to be done to prevent spills and protect against their consequences. Certainly the Members of this Subcommittee are concerned, or you would not be here today. Certainly the President is concerned. That was demonstrated by the fact that Secretary Lujan and Administrator Reilly inspected the spill less than 24 hours after it occurred, and by the fact that Secretary Skinner and Admiral Yost came to Delaware when we were not satisfied with the results of the cleanup. The White House staff took a serious and personal interest in this spill, which I think reflects President Bush's sensitivity to environmental issues.

So what can we do to prevent future spills and make sure that our cleanup efforts are as effective as possible?

I would like to propose several steps that will increase our ability to prevent spills from happening,but clean them up fast and effectively, if they do occur.

Our first concern must be to make sure that the Coast Guard has the ability and the resources necessary to react to spills. This responsibility has long rested with the Coast Guard, and the technical people I rely on tell me that during the 1970s the Coast Guard's Marine Environmental Protection Units set the standard for an aggressive and successful national strike force. But budget constraints have hurt the effectiveness of these units, and I am concerned that we are approaching the 1990s ill-prepared to deal with oil spills.

I would fully fund the Coast Guard's needs in this area, with one proviso: that the oil industry bear the cost of this effort. I would expect an industry which has free use of our waterways to support a proposal to expand our environmental safeguards and to spare us the horror of another *Valdez*.

I believe that good fortune alone saved us from serious environmental harm in the Delaware spill, and I believe that the environmental risk was heightened by the decision not to federalize the cleanup.

There is a clear need to establish a uniform, national policy of federalization, perhaps triggered when estimates of the size of the spill reach a certain level. It is nonsensical to allow lawyers and agents for insurance companies—whose first interest must be saving money for their clients—to have any say in the size or speed of the cleanup effort. At the same time, a clear-cut policy regarding on-site coordination must be established. This is of paramount importance.

During the days of the cleanup of the *Presidente Rivera* spill, the temperature climbed above the 93 degree melting point of the number six oil, making it imperative that as much oil be removed from the river as quickly as possible to prevent its melting on shore.

But until half way through the cleanup, operations were directed from Philadelphia. Decisions were being made 30 miles from the site of the spill with inevitable delays that could have been extremely harmful. We cannot direct an oil spill cleanup by remote control.

The decision to set up a mobile command post in Wilmington gave us a nerve center literally within sight of the spill and allowed us to effectively connect headquarters, contractors, on-site cleanup crews and local and state agencies. There is no substitute for the on-the-scene coordination when changing circumstances require a change in response.

One other consideration supports this approach: Delaware does not enjoy the luxury of redundancy in any cabinet department, and we were hard pressed to provide needed staffing when decisions were being made, or at least discussed, at three different locations during the early stages of the cleanup. This argues for a unified, on-site command post.

One other passing comment on the subject of coordination: We experienced problems with communications among agencies, and there is a need for uniformity among agencies to facilitate communications in emergencies of this kind. It may be that the Coast Guard would decide to have mobile equipment available at various key locations in the region.

There are a number of planning steps which deserve consideration. Foremost, perhaps, is the need for a much heavier deployment of equipment to be held in reserve for emergencies.

I am struck by the vast difference between the many systems in place to ensure safety in aviation and the relative lack of safeguards in the area of oil transport. While we measure the value of aviation safeguards in terms of lives, I am sure that if Governor Cowper of Alaska were here today he would tell you that we cannot treat environmental disasters any less seriously and that more and better safeguards are needed. This responsibility rests squarely with the various oil companies and shippers using our waters. While I prefer a voluntary approach, I would not be opposed to federally mandated steps if the industry was reluctant to act on its own.

Specific contingency plans like those in place for the anchorage in the Delaware Bay should be in place for the upper Delaware River, and the equipment to implement them stockpiled. Equipment should include skimmers, absorbent materials, booms with deep skirts, all located in strategically placed warehouses close to the water. At each mouth of tidal streams, there should be permanent anchor gear so that equipment can be deployed promptly.

In this spill, as in all the ones I know about, time has been of the essence in preventing damage and minimizing cleanup costs. In fact, some sort of national rapid deployment force equipped to handle the initial stages of any large spill until local units are in place may be needed.

The technology of oil spill cleanup is evolving, and we should approach the logistics of the job willing to explore new solutions.

The aviation analogy applies equally after a spill occurs. The same painstaking investigation and reconstruction that occurs after an aviation accident should be applied after large spills. After each incident, the Coast Guard and the Army Corps of Engineers should review the cause of the incident and consider corrective action necessary to prevent a further incident.

For example, should the outcrop of rock in the Delaware River be removed to prevent another spill? When groundings occur, should consideration be given to dredging? In our state's review of this incident, we decided that it would be valuable to include the Delaware River and Bay Pilots in our response team to reduce the opportunity for error in reporting a release or in containing the release and immobilizing the ship or allowing the ship to continue on its passage.

My testimony, necessarily, can touch only on major points concerning the spill. For that reason, I have asked my Secretary of Natural Resources and Environmental Control to follow up with a detailed report on the spill and specific recommendations regarding future spills. We look forward to participating in the federal assessment of recommendations for improved responses to oil spills.

Though I have emphasized areas where improvement is needed, I should add that we are grateful to the Coast Guard and its contractors as well as the owners' representatives for their work on this cleanup. In the long run, successful implementation of an effective national policy regarding oil spills will depend on leadership in Washington, both from the White House and the Members of this Committee.

It is not a parochial concern. It is not a regional concern. Protecting our rivers and coastlines is just as important as protecting the great national parks and forests of the West from development and exploitation. Tiny pea Patch island, with its isolated rookery frequented only by migrating shorebirds, is part of our natural heritage and must be protected.

Thank you.

Let me sincerely thank all of you for being here and for your interest in what you are doing here today.

[The statement of Governor Castle can be found at end of hearing.]

Mr. FOGLIETTA. I thank you, Governor, and I thank you for being here.

Governor, you are most forceful on the need to establish a uniform national policy of federalization. You suggest that perhaps it could be triggered when estimates reach a certain size or a certain level. My first question to you, sir, is where should the Federal Government automatically come in?

The most widely voiced suggestion is that the federal Government should come in at, for some reason, 216,000 barrels, or about 9 million gallons. Are you comfortable in relying on industry up to that point? Do you think that is the right point?

Lastly, do you think that we should make our criteria depend solely on volume or should it be varied, depending on what the substance is? For instance, if a toxic substance were to be spilled, should the Federal Government come in at a lesser volume or at any amount spilled?

I would appreciate your addressing that question.

Gov. CASTLE. It is a very good question, Mr. Chairman. I obviously do not have an explicit answer. I am not an oil technician. I do not know all those things. I probably do not know them as well as you do.

But each of us had the opportunity to see the spill close at hand, and you get some judgment of the wide-spread nature of it and the help that is needed to do it.

I happened to observe it on several days, but the day that stands out was the day after the spill, the Sunday, when I was coming right here—as a matter of fact, with Governor Casey, or coincidentally with Governor Casey—and we flew over and we literally saw nobody working on the river at all. Now, I have read a very good story in our local paper indicating how many people were working out there at various times. But on that particular day, which I thought was the most significant day in the whole spill, the first or second day it would have been, we saw virtually nobody working at all. That concerned us a great deal. We had to come here to get things organized and that is when we got into this federalization question, which had been into place quickly in Rhode Island, but not so quickly here in this river.

I do not know what the limit is. We were talking about 100,000 gallons, but that was conjecture among the people in our Department of Natural Resources and Environmental Control. It is not a personal observation of mine. I would say with the buildup of our population here—I think the point you make—that perhaps in different circumstances—you need to federalize more quickly.

To be honest with you, I had no idea what different numbers of fuel oil were until the spill took place. All of a sudden I am going out there looking at oil, and I walk up here and they hand me something I turned upside down in a jar, and it did not even move; it was so thick and so coagulated.

So I think that the truth of the matter is, when you get into something like that which was under the skirts of the booms that they had out there, as you know, and just escaped a lot of the various cleaning methods that we normally use, you have got a different situation. So perhaps less gallonage would be in order there.

It is sort of interesting, too, that we measure this in terms of gallons. They measure it in terms of barrels when they talk about Alaska. It depends on where you are. But gallons, or any other measurement of a smaller nature, is more significant here perhaps in the Delaware River than it might be elsewhere. Although I think any spill is very sensitive, here with the environment right on top of the people, you have got a tremendous problem.

So I do not know what that limit should be, but it is worthy of discussion. I do not know—216,000 gallons, I guess it was, but that is a starting point at least. I would hope that it could be lower.

As I understand federalization—this is an oversimplification—it basically puts people in charge who can go out and get things done.

You are not dealing with the insurance people and the contractors and shippers and whatever it may be. This becomes very difficult when you have people who are far away and have to get clearance on various things. Not that they do not try to do a good job. I am not trying to criticize anybody for their effort, but the reality is it just was not there. That is why I think immediate federalization is such a vital state, in conjunction with what the regions and the particular states want.

Mr. FOGLIETTA. Thank you, Governor.

Congressman Carper.

Mr. CARPER. Governor Castle, thank you for your statement.

Could you just review with us briefly the chronology—not so much the spill: the ship runs aground just before 5:00 a.m. on a Saturday morning. Could you just review with us briefly the chronology of the cleanup, as you understand it, leading up to the call to active duty of 300 National Guardsmen?

I would be particularly interested in hearing your candid comments on critiquing the role, the involvement, of the private sector from the time of the spill almost to the end of the following week.

Also, critique if you will the involvement of the Coast Guard.

Gov. CASTLE. Well, Congressman, I wish I could critique all these things as well as you would like me to, but I cannot for certain reason. Because I was never certain in this entire one week, but really four or five primary days stretch, exactly what was happening with respect to the private contractor in that cleanup. I can only tell you what I saw. What I saw is what I really already stated.

I saw very little action on that river. I visited almost every day or had reports. We literally were getting hourly reports in, and the reports just simply were that there were not a lot of people out there on the job at any one time. We heard all kinds of stories about why that was true.

So I must say that I was very concerned about the private effort to clean up. I think when they did work, they tried to work hard. They did a relatively effective job. But I question the numbers that have been thrown around of people who were out there.

Mr. CARPER. At what point in time during the week did you feel that they were doing an effective job?

Gov. CASTLE. Apparently they did a reasonably effective job for parts of Saturday, the immediate time after the spill, in terms of some of the early containment and some of the things that had to take place.

I understand later that weekends are very difficult to round people up and get them out there, because a lot of this is sort of piecemeal. You pick people up. That is something I had not thought about before, but believe it or not, an oil spill is better on a Monday than it is on a Friday. So Saturday was not a bad day, apparently.

Sunday was clearly not a good day. Governor Casey flew over. I flew over. We did not see anyone out there. I am sure they were there, but we really saw nobody.

After that we brought the National Guard in. It was that afternoon that we called for the National Guard.

Mr. CARPER. Which afternoon?

Gov. **Castle**. The Sunday afternoon after the incident took place.

Mr. **Carper**. When were they mobilized?

Gov. **Castle**. There were mobilized and in place—I believe, on Monday morning they started to go in place, through Thursday, I believe, of that week. It was either late Wednesday or Thursday we took them out of the situation.

Those people, by the way, our National Guard, they work on the weekends normally. They were brought away from their work. We had to rotate them so that they were not away from their work for too long. That was complex, too.

Although I must say the kind of work that was involved lent itself to the National Guard, because a lot of it was individual pickup and cleanup of rocks and that kind of thing. You could do this individually. It was not just booming and the usual apparatus. I am not sure that would apply in a slick type situation. It might be entirely different.

So the National Guard was very helpful in this particular circumstance.

The Coast Guard situation—and Captain Murdock who is here can testify to this probably better than I—but the Coast Guard situation was a little bit perplexing. First of all, I had some sympathy for the Coast Guard. They had all changed command apparently that Friday, and then all this happened the next morning. I feel sorry for anyone who is cast in that particular position.

I have absolutely no criticism of the intentions or effort of these men and women. They were outstanding from the beginning. They cared. They showed a lot of interest in it. Admiral Yost, as I indicated, came up later to look at this.

On the other hand, as I have also indicated, I personally would judge that they should have moved the command headquarters right down to the site of where it was taking place. We were dealing with the Sun Oil place where the ship was. We were dealing with the Coast Guard. We were dealing with our own bunker in Delaware.

It was a very difficult coordination in question. We would say things, and they would say they did not know that, which surprised me. I think if they had been on scene, they might have known that.

At this moment, I am not sure what their coordination abilities are in terms of helping with the federalization, or helping with the coordination with the private contractor and coordinating with the state. I think the intentions were good, but there would be times when we felt there was some downtime, too.

I think that should be reviewed carefully, not by me as Governor seeing it occasionally, but by the Coast Guard itself and those who review the Coast Guard to make sure that they were doing their job properly.

I just must say that my criticism does not go to the effort of the individuals. They certainly tried. I am not sure if they have the money, the equipment, the training, or whatever it takes, in place to really take care of something like this.

If I had to criticize in general, put all that together, my criticism would be aimed at not having immediate response teams. You want to prevent, and we heard some good suggestions—not in my testimony I might add, but in testimony from other people here—

about navigation systems. I think the Pilot's Association should be more involved. As I indicated, we need to look at the double-hull. My understanding is they may be too big to ply a river. I do not know what all those things are. We need to look at prevention.

But we also need to look at what happens when these things take place, because when you see it spread, when you see it starting to go over to New Jersey and down to Pea Patch Island and all along ten miles of the Delaware River, you know you have got a problem.

If we have the equipment in place, if we have the different booms and ships and manpower in place to call them out immediately and contain it, it can make all the difference in the world, particularly in an area as populated as our Delaware River and Bay. So it is the immediate response that concerns me.

As you know, the oil companies are putting together a consortium for Cape May as one of, I think, five in the country. That is fine, but I am not sure that really helps us with this upper area where all these spills seem to take place.

I think between the regionalization of the states—and I intend to work with the governors of those states—I really cannot thank them enough. Mark, you and Bob Casey did a wonderful job, and they all did a great job, but all of them contributed.

But I think if we can regionalize this, if we can get better equipment into this upper area, if we can get better coordination among the groups, that could be the single greatest thing we could do in terms of cleanup, not worrying about what happens four days down the road, but in the first hour, the first 12 hours, the first 24 hours after the spill takes place.

Mr. CARPER. Were you asked by the private sector people to mobilize the National Guard? Were you asked by the Coast Guard? Was that something that was done on your own initiative?

Gov. CASTLE. That was certainly something done on our own initiative. I had flown over. I had talked to various people in my administration who had been involved in the oil spill, particularly Secretary Toby Clark—who, by the way, I cannot say enough about him and Pat Murray, who is head of our Public Safety Department, and General Episcopo, who just did a great job of coordinating all this. I had spoken to Secretary Clark and he said that the individual manpower would be tremendously helpful. That is when we brought out the National Guard. It was at his recommendation, suggestion, that we did it, but we did it of our own volition.

Mr. CARPER. Who bears the cost of the cleanup work by our National Guard?

Gov. CASTLE. We hope that ultimately that cost will be shifted to the shipper—I guess the insurer for the shipper, but whoever it may be—that is something we will attempt to get done.

By the way, that is not insignificant. In fact, there is a whole little college industry in this business of costs in these oil spills. I have learned this since about five accounting firms came to us to ask to manage it for us.

A couple of comments were made earlier, I guess by Senator Lautenberg or somebody else, one of you all testifying about some of those costs in terms of—it was Senator Lautenberg—in terms of the costs of the engines that are being used, and depreciation, things of this nature. These costs should be, in my judgment, passed on. I think if these costs are passed on, we will see the oil companies become more responsive than they are now to what they have to do clean up some of these problems.

Mr. CARPER. It is ironic that I will conclude with this. It is ironic that with an administration, at least a previous administration which sought to get the federal Government disengaged, uninvolved, in efforts in this nature, we are hearing you say that what we really need is a federal effort to carry it out, but one funded by the private sector.

I would again go back to the point I made with Senator Lautenberg. The legislation that we have been working on for a number of years provides for extra resources for the Coast Guard to do research on cleaning up the number six oil. The kind of money that can be used for extra booming and other kinds of equipment that the Coast Guard can use in containing the oil, that would be monies raised from the private sector, from the industry itself, and used to help mobilize a better, more effective federal effort.

I would certainly hope that our senators, our friends at the other end of the Capitol, can push through—and we will get those guys mobilized and push that legislation through.

Again, thank you for being with us today.

Gov. CASTLE. May I just comment on that?

Mr. CARPER. Please, sure.

Gov. CASTLE. I must say, to defend Senator Mitchell in what he has done, I understand that Maine has some of the upper standards. I do not know what they are; reading the articles is all I really know. Maine is a very environmentally oriented state, so I would imagine they have some very tough standards, and he has apparently tried to protect those standards.

So to that degree, I understand that. To the degree that we have standards that are stronger than they would be on a national basis, we should do that, too.

I think you are right. I think we need to do a couple of things. One is, if the Coast Guard is going to be the leader, let us make the Coast Guard as strong as we possibly can.

Secondly, when I say federalization, I really mean a good coordination system that involves the individual states, regions, and the federal Government coordinated, and I think that the federal level is probably the place to have that coordination. So that is really what I mean when I talk about the federal programs and such, which is, I hope, what is in your legislation, which is vitally important.

As to the oil companies paying for it, I am not too sure we have not already been paying for it with the increase in the gas prices here in the last six months.

So I would suggest that this is something that in the long term may be in their best interest anyhow. I just hope that they would come to that understanding.

I think if we coordinate all those things, we can get it done.

If I had to make one bottom line critique of this whole thing, it was the lack of coordination is that concerned me the most and the fact that we had to sort of get in and do a lot of yelling and screaming—for lack of a better expression—to really get some things moving. It really bothered me. I do not want to see that happen again. I want to know that you could press a button and things are going to happen, in the future.

Mr. CARPER. Thank you.

Gov. CASTLE. Thank you.

Mr. FOGLIETTA. I think Congressman Saxton has a few questions.

Mr. SAXTON. Governor Castle, let me just begin by commending you for the having the foresight to take the immediate action you did. Obviously, we had those gobs that you described floating up and down the river—literally up and down the river with the tides—and for you to have seen quite clearly what you needed to do, and that was to get a line of men and women stationed at the shores so that when they came ashore on your side, you could scoop them up before they actually got ashore. That was excellent.

I also want to comment on something that you said which I think is of paramount importance here, and we will emphasize this over and over again today, I think.

You indicated that when you had your fly-over, I believe on Sunday, you did not see any significant number of boats involved in any type of a cleanup. I flew over at nine thirty Monday morning, and we saw two boats involved in what appeared to be hand-netting activities or a pitch fork type activity, in trying to clean up at Marcus Hook, and three or four boats at Pea Patch Island. That was the extent of the activity that we saw on the river at that time.

In coming back here and talking with Captain Murdock, he indicated that what we saw was probably what there was available at that time, although he also indicated, I believe, that there could have been other boats which were ashore offloading the stuff that they had picked up.

But it was not until the next day on Tuesday that something significant started to happen.

I have here a report from the Coast Guard which is dated June 27, 11:30 p.m. It says among other things, "In terms of methods used that day, fishing vessel White Dove today experimented with fishing nets to corral oil. It worked."

So apparently through no one's fault—I am sure everybody was trying as hard as they could—it took from Saturday morning when the spill occurred, all day Saturday, all day Sunday, all day Monday, until some time during the day on Tuesday when we were finally able to find an effective way to corral significant amounts of this oil.

These reports go on from there to show that by the next day, 102,000 gallons had been clean up, or thereabouts, and by the next day, another forty-seven. So it was kind of a procedure that the Coast Guard went through, because we collectively were not ready for this type of a spill that finally found a method to the use of a fishing boat with a net to pick up significant amounts of the oil. So I just wanted to emphasize that.

Let me just quickly get into something else that you said which I think is very important. When you say, "federalize," that to me means that the federal Government should somehow take over the cleanup effort. I am not sure that that is totally realistic to expect that to happen for two reasons: one is that as Chairman and Congressman Carper know, every year at authorization and appropriation time, we fight for money, additional money, for the Coast Guard.

We know how important the Coast Guard search and rescue mission is. We know how important is the mission that we have given the Coast Guard on drug interdiction. We know how important their other policing activities are. We know how important it is in places like Barnegat Inlet, the most dangerous inlet on the East Coast, to have an adequate Coast Guard cadre in place. We also know how important it is for them to clean up oil.

We fight for those monies every year, but we do not get them. We compete with other environmental interests where monies are spent. We compete with farming interests in the mid-west. We compete with senior citizen interest. We compete with all the other interests that are so important.

Secondly, in at least some parts of the country, as here in the Delaware River—this is a pamphlet which is designed and printed by the Delaware Bay-River Cooperative, which illustrates an effort that was made by an industry here. So around the country there are these private interests that can be coordinated.

I would suggest to you that the concept contained in what we call the Clean Ocean Act of 1989, I believe, which essentially says—this is the kind of federalization that I believe is reasonable and possible to do and fundable—that the Coast Guard commander in the area have the authority to call Governor Castle and Governor Casey and Governor Kean and say, "We've got an oil spill, sir. I'm in charge. I would like you to send your representatives down here so that we can get this thing organized. When you send them down, make sure they know that I'm a Coast Guard captain, and I'm in charge of the spill. I'm in charge of the cleanup. The federal legislation that I've got before me authorizes me to do that."

Second, by that time there would be in place a plan that this cooperative, or other cooperatives around the country, would have established, with the cooperation and the approval of the Coast Guard, equipment wise, personnel wise, methodology wise, research—What type of product are we dealing with? Is it going to congeal and form a glob as soon as it hits the water? Do we need deep skirts? What kind of booms do we need, in other words? What kind of other equipment? Will the Del Bay work? The Coast Guard ought to have that knowledge and ought to be in charge of the cleanup. I believe that strike forces ought to be in place, funded by, manned by the industry after approval of the Coast Guard. That kind of federalization, I believe, would work. It is practical to do because we have already got a start on it, as is evident here in the Delaware River. It is fundable, because we would provide that the industry fund it and maintain it. It would work, I believe, because somebody who knew what they were doing would be in charge of it, namely, the Coast Guard.

Gov. **Castle**. If could just comment briefly on that, Mr. Chairman?

Mr. **Foglietta**. Sure.

Gov. **Castle**. You know, "federalize" is a terrible word to use. I should never have ever picked up that word—somebody gave it to me; we were flying around in the helicopter—because it could mean a whole raft of things.

Basically what I am talking about as federalization is almost exactly what you just said, Congressman. I do not mean anything really beyond that.

As I understand it now, basically we were depending upon the insurer of the shipper in this situation to coordinate things, to get contractors, and to do everything else, and I just think that is a very dangerous thing. You are dealing with many foreign shippers. As I indicated, there was one that left at night and tried to escape responsibility here. I mean, they are certainly not going to do much to help us clean up our river. Whereas, I believe that the Coast Guard, which is established here in each of our states, and certainly you all in Washington are going to care a heck of a lot about it, and we are all in there heart and soul trying to get something done about this.

So when I am talking about federalization, I am talking about an essential place in which the orders can come down with the capacity to draw in all the resources which are out there, expertise or manpower or equipment or whatever it may be, and the authority to spend that money, which hopefully was paid for by the insurer, but the authority to make those orders without trying to skimp on it to make sure that the cleanup takes place right away.

That is essentially what I am talking about by federalization: a coordinated effort in which we take over, in which any shipper or oil company which comes in here knows that that can happen, that is the risks they take when they come up this river, that this can take place if there is a spill, and they are going to be responsible for it ultimately in a financial sense. But we are going to take over when it gets to a certain level of spill so that we can really get some action to get some things done.

That was the big problem in this spill, in my judgment. It was all that delay that you have spoken about.

Mr. FOGLIETTA. Governor, again we thank you for being here with us today. We value your testimony greatly.

Gov. CASTLE. Thank you, Mr. Chairman. I enjoyed being here. Thank you for being here.

Mr. FOGLIETTA. The next witness we have is the very distinguished Lieutenant Governor of the Commonwealth of Pennsylvania, Mark Singel.

Governor, we certainly thank you for being here with us today. On behalf of the citizens of Philadelphia, especially those of us who live near and work in the port of Philadelphia community, we want to thank you and the Casey administration for the great work you have done in helping us develop the port for the city of Philadelphia, especially your work toward the establishment of the Pennsylvania Port Authority, which was culminated just last week.

We believe that orders well for the community of Philadelphia, for the Commonwealth of Pennsylvania, and it is going to mean worlds of difference for the development of our port in conjunction with the ports of Delaware and New Jersey in competing with other ports throughout the country.

Personally, I also want to thank you, Governor Casey, and your administration for the work that you have done in opening the

Lehigh Tunnel. This needed improvement as drastically reduced the time it takes me and other Philadelphians to travel between the city and the mountains.

On behalf of the good people of Philadelphia, I compliment you, Governor Casey, and your entire administrations on your outstanding efforts.

I know that you have some experience in the oil spill cleanup response area, and we certainly are looking forward to your testimony.

STATEMENT OF HON. MARK S. SINGEL, LIEUTENANT GOVERNOR OF THE COMMONWEALTH OF PENNSYLVANIA

Lt. Gov. SINGEL. Thank you, very much, Mr. Chairman and Congressman. It is a pleasure being here. I am delighted with the testimony I have heard this far and agree with much of what has been said.

I am here representing Governor Casey and the people of the Commonwealth of Pennsylvania, but I am also here because I wear the hat of being the chairman of the Pennsylvania Emergency Management Council and indeed have had some direct experience with oil spills here and in the Pittsburgh area over the past two years. I therefore feel that I can bring to this Committee, perhaps, some suggestions that may provide a road map of sorts on oil spill incidents, particularly as we discuss the response capability after such incidents.

Oil spills are becoming a major threat to our environment once again. We had perhaps become somewhat complacent, but it is very difficult to ignore the real dangers and the real trauma that is caused by oil spills of the magnitude as we have seen on the Delaware River, particularly when you go home to your six o'clock news and hear the news, weather, sports, and spill-of-the-day report.

In recent testimony before the House, the Coast Guard reported that we had experienced some 6,700 oil spills during 1988, ten of which involved spills of more than 100,000 gallons. Cleanup crews recover, on the average, can recover about 10 percent of the oil that is deposited on a waterway. So you can see that we have a very significant problem here.

I will summarize my comments and touch briefly on my prepared remarks and give you some rather direct suggestions concerning federal preparedness and how, as Governor Castle has indicated, we can work more closely together.

First, let me express to you the experience that we had in January of 1988. As you recall at that point, an Ashland Oil tanker along the Monongahela in Pennsylvania split open. It released 4 million gallons of oil and about 1 million of that ended up polluting the river. For ten days, the attention of the nation was focused on 25,000 homes without water, about 250,000 people who were on mandatory water restrictions with their taps about to run dry; we suffered through temperatures below zero; animals and fish were killed; and a river and community that had just become to recover from economic duress had seen yet another major setback.

Then we were justifiably alarmed by the recent incident of the *Exxon Valdez* situation in Prince William Sound.

It is important that we understand that accidents of those magnitudes can and will happen. In fact, we have a greater potential for those kinds of spills right along our East Coast ports than we do in many of the other areas of the country. We had two East Coast spills within 12 hours several weeks ago.

The point here is that the East Coast tanker deliveries make these accidents almost a certainty. These deliveries are accidents waiting to happen. It is not widely realized, also, that a *Valdez* type spill in the waters of these states could be significantly greater in terms of environmental damage, because you need to consider a number of important differences. Our waters typically have soft bottoms as opposed to the hard bottoms of the Prince William Sound. Our waters are significantly more shallow. Probably most importantly, our waters are bounded by sandy shores and environmentally crucial wetlands as opposed to the rocky reefs up in the northern tier.

The Pittsburgh spill has kind of receded in our minds, because, frankly, I think it was handled well.

But, Mr. Chairman, it is important not to minimize the duress that it caused. Our state emergency operations center expended $2 million in the 14 days, the 24 hour-a-day schedule that we worked to cope with the incident. A dozen state agencies were involved; 60 local groups were involved. The successful response story was made possible because of the close cooperation and the immediate response that Governor Castle has talked about in his testimony.

Still, even with that kind of response, even with that speedy mitigation and that close cooperation we were able to achieve, the environmental cost is almost incalculable to this day.

Pennsylvania has developed what we feel is an effective emergency response capability. We believe that our current state of readiness is adequate to respond effectively to any land-based spills, as well as spills into smaller, non-navigable streams. However, the events at Ashland and in the Delaware River recently clearly demonstrate that natural resources protection and immediate response often is going to be in the hands of the federal Government. Recent major spills have really caused us to question whether or not we are capable of providing that immediate response under present law and present regulations.

The *Presidente Rivera* ran aground off Marcus Hook, 300,000 gallons of oil were spilled. The current estimates for the cost to Pennsylvania are under $50,000. This is primarily because the drift of the water carried most of the problem southward into our sister state of Delaware. Also, we were able to recover, I understand, about 70 percent of the oil, which is an unusually high figure in these kind of incidents.

So as dramatic as the spill was, and as difficult as the response has been today, I must tell you that it could have been an awful lot worse.

During the response and recover, several problems were encountered. The Coast Guard was the lead federal agency, and it is clear that the Coast Guard was not prepared for this incident. My comments, again like Governor Castle's, are not in any way to denigrate the efforts of the Captain and the Coast Guard on site. They worked long hours, they provided yeoman's service. My suggestion to you is that there are some institutional changes that need to be made and made in a hurry. There are some systemic kind of problems that need to be addressed. Let me give you some specific recommendations.

We would recommend, for example, that the Coast Guard develop, review, and exercise a port spill response plan biennially and that all appropriate federal and state agencies participate in that planning and exercising process.

Number two, we would suggest that the Coast Guard, the lead agency in these types of spills, be the one to suggest who the contractor should be. The contractor should not be selected by the spiller.

Number three, we suggest that the federal Government should make all resources possible available to the lead agency immediately in those critical first hours after the incident occurs. It is important that the interdepartmental and the intradepartmental aspects of a federal response are available to the commander, to the person who is trying to coordinate in order to get them done.

Either the Coast Guard should have access to all interagency resources, or we should give the Coast Guard more in-house resources. Obviously, the former is the most cost effective way to approach this in terms of taxpayer's dollars.

One of the reasons for interagency nonaction in those first few days, as has been noted here, may be that there was not an effective way of keeping the various agencies involved and informed. There was a lack of a clearinghouse of information. There was a lack of an emergency response center on site, as has already been noted.

A command center, a central location, constant updates are required in these situations. We have found that to be the case in the Ashland Oil spill; we have found that to be the case in literally dozens of smaller incidents in Pennsylvania. In fact, we have perhaps a model of an emergency operation center in the Pennsylvania emergency management agencies in Harrisburg today. We like to think of ourselves as being prepared for situations because we have done the planning and we can coordinate all the resources of the state government.

Next, we would suggest that the Coast Guard captain should identify all spill response and recovery resource requirements available to the prime contractor, and we would suggest strongly that we make those resources available without question, without hesitation, and then bill them for the services later.

I agree completely with what has been said, that the ultimate cost of bearing the responsibility rests with the industry, but please do not misunderstand. Rather than debate, rather than cajole, rather than negotiate for supplies and manpower and services in that critical first few hours, we ought to just do it. We ought to provide those services and then send the people who caused the problem the bill. I think that that is a solution that must be implemented.

I might also mention that the 311K Fund which the Coast Guard and the EPA use in the event of a federalized spill has not been working. Its funding is too low, it should be either revamped or dropped. The Coast Guard should be empowered in response to an incident to expedite the hiring, the purchasing, the leasing, the contracting, and any other type of activity necessary to mitigate the incident, immediately. It is that critical loss of time that makes a relatively minor incident into a major emergency. Because of the various complications of federalization and the wording of the 311K Fund, we find ourselves negotiating with the office of Budget, or OMB, and some federal bureaucrats who are concerned about expending dollars when we really should be concerned about saving lives and mitigating the environmental aspects.

I believe that you need some kind of emergency funding mechanism to provide the short-term funding that would be reimbursed from the oil companies themselves once the immediate responses are accommodated and once all of the smoke clear.

The Coast Guard has had a number of missions added to its agenda recently, such as drug enforcement and so on, but they have lost staff and equipment in recent years. I must say that the Congress has shown concern to the public policy, but has not been willing to provide the necessary dollars in the federal budgeting process for the Coast Guard to proceed.

Now, I learned today that much of the activity is focused in the House, and I salute you and congratulate Members of the House for recognizing this need and for making the effort to provide additional dollars for the Coast Guard. I am here to say that from the perspective of Pennsylvania, it is a vital investment that should be made without hesitation.

We ought to also reopen the EPA and Coast Guard oil spill research center. As you know, these were closed several years ago, and it is necessary to engage in further research and development to determine exactly what are the best responses. The industry has done a remarkable job of proposing certain new directions. I mention the Petroleum Institute Response Organization, and I have discussed that further in an attachment. My suggestion to you is that the federal Government should get together soon with this new PIRO organization to see what can be done in the private and the public sectors to proceed together.

Finally, I must reiterate that the Coast Guard staff, partly because of the change of command, partly because of a lack of planning, was simply not prepared to deal with this crisis in an immediate sense. It is necessary that we establish preassigned functions. It is necessary that we establish some planning, some checklist for immediate actions. It is necessary that we move a command center close to the site, and it is necessary that all of the states involved cooperate fully with the lead agency handling this site.

I am intrigued by the concept that Congressman Saxton has offered with regard to a modified federalization. I think that makes a lot of sense. I think it is doable and I would support that fully.

I think that perhaps the states can offer you some help in this, having developed experiments of our own in emergency mitigation, and we stand ready to provide any and all support that you need in this effort.

Let me just simply mention, Mr. Chairman, that we have developed for you a series of detailed recommendations and a background paper that I would submit for the record and for your staff to review. We feel that it offers a comprehensive series of suggestions that you may be able to use in drafting federal legislation and new regulatory procedures.

With that, I thank you for your interest. I salute you for taking the leadership in this important matter and would offer any assistance that we can to develop and implement this important bill.

Mr. FOGLIETTA. Thank you, Governor, and without objection the Governor's report will be entered into the record. Hearing none, it will be entered.

[Statement of Lieutenant Governor Singel can be found at end of hearing.]

Mr. FOGLIETTA. Governor, you have talked about the activities of the various states in responding to these spills. In view of the fact that in most instances these spills affect two or even more states, is there a formal consortium of activities developed among states like Pennsylvania, New Jersey, and Delaware to respond to these kinds of catastrophes?

Lt. Gov. SINGEL. There is no formal emergency response entity that presently exists, but I should tell you that our emergency operations people coordinate on a constant basis with our neighboring states. There was a very productive, albeit informal, consortium during the Ashland Oil situation, for example. But we have yet to develop a formalized interstate compact to address emergencies, and I was pleased to hear the Governor make that suggestion, and it is something that I think we will follow up on.

Mr. FOGLIETTA. Secondly, we heard a lot this morning about federalization. I think you agree that at a certain point, the federal Government has to come in and work or supervise the states as per Congressman Saxton's suggestion. Do you have any ideas as to what the criteria should be to determine when the government should come in, either in regard to the substance or to the volume spilled?

Lt. Gov. SINGEL. Perhaps the experience that we have in Pennsylvania may be helpful. It is the general policy of emergency response to allow the unit of government closest to the incident to deal with that as best they can, so that if a township, for example, cannot handle an incident, then the county perhaps will come in. If the county cannot handle it, then the state comes in.

We serve as a coordinating body in the emergency management agency, and we intervene only when it is clear that the lower levels of government have either exhausted their resources or are incapable of addressing the overall emergency in its entirety.

Similarly, it is clear, that—well, for example, if, in fact, there is an oil spill on the Monongahela and it crosses county boundaries, the state moves in automatically. If, in fact, there is a spill in one county, but it involves the endangerment of life or a serious threat to property, the state will move in.

Similarly, at the federal level, if any incident involves more than one state, it seems to me that that should be criterion enough to move in quickly with an arbiter, if you will, with an onsite lead individual who would be the person to make the decisions with the full advice and consent of the states involved. I think that that is your first indicator that a federalization is necessary.

Secondly, it would be worth establishing some minimum amounts of oil spill at which time an automatic response would kick in. My suggestion to you, though, that the 216,000 gallons is painfully too high, because that can do an awful lot—no, you mentioned 9 million gallons as your number, and 216,000 barrels. That number is way too high, because we spilled only about 800,000 gallons in the Monongahela, and yet we are still paying a serious ecological price for that.

So if we are going to set that number, we have to make sure that it is low enough that the federal Government gets in before we do untold damage to our shorelines.

Mr. FOGLIETTA. I thank you, Governor.

Congressman Saxton.

Mr. SAXTON. Obviously, Governor, you have a very thorough knowledge and understanding of what has happened here, and inasmuch as you endorsed my concept, I think you understand how to fix it, too.

Beyond that, how would you feel about the Coast Guard just flat out being in charge of a cleanup of a spill like the one that occurred in the Delaware? Are we moving in the right direction there?

Lt. Gov. SINGEL. If there is more than one state involved, it is necessary to have the federal Government calling the shots locally. But I would caution you that that should be done with the full consultation of the chief executive officer of the states. That is necessary because there might be different procedures, there might be different liabilities, there might be different regulatory restraints on the various states.

In order to mobilize the National Guard, for example, it takes a tremendous set of circumstances to protect yourselves from liability.

I salute Governor Castle for cutting through the red tape as effectively, as efficiently as he did. We opted to not to proceed with the mobilization of the National Guard in this incident because it was felt that it was unnecessary, but in no small measure because it was a bureaucratic nightmare to do so.

My point to you is simply that if, in fact, the federal Government is the lead agency, and I support that, they should be responsive and communicative and willing to update the various state and local actors on a regular basis.

Mr. SAXTON. I agree with you. I also hope that you are saying that somebody has got to be in charge. We cannot have a place where if we are trying to get containment booms in place within five hours, we cannot have a situation where we are going to debate how to do that.

Lt. Gov. SINGEL. That is right.

Let me make it very clear. In this incident, in my opinion, what should have happened is that the Coast Guard should have been designated the lead agency immediately, perhaps by some formula, and the captain onsite. The local top official should have absolutely been in charge and should have had at his disposal the assistance of the emergency personnel from all of the states. They would be consulting with him, but in the case of a dispute, he would have the ultimate decision-making power.

I might also add that—I made this point in my testimony—it is hollow and dangerous to put that individual out in front without any resources. It would painfully unfair to Captain Murdock and others who worked so hard to give him the title without the ability to do anything. They need that interim funding so that they can proceed and drop the booms and begin the cleanups and mobilize the personnel, and then the costs that are incurred should then be passed on after the fact. We should do the paperwork after we handle the incident, and that is basically the pattern we are trying to establish in Pennsylvania.

Mr. SAXTON. Thank you.

Mr. FOGLIETTA. Governor, I thank you for being here today. Again, I want to thank you and Governor Casey and your administration for the great work you are doing both for the city of Philadelphia and for the State of Pennsylvania.

Lt. Gov. SINGEL. Thank you, very much, Congressman. I appreciate being here.

Mr. FOGLIETTA. I now would like to call our first panel of witnesses. Would Rear Admiral Welling, Captain Murdock, Captain John Bates, and James Leigh please come to the witness table?

Mr. FOGLIETTA. Due to an important House-Senate conference meeting scheduled for this afternoon, and because of the unusual circumstance that we are scheduled to have votes on the Floor of the House today, we are more pressed for time than we originally expected.

Therefore, we are going to proceed until 12:00 noon. If we have completed our hearing by that time, fine. But all witnesses' statements will be entered into the record.

I would also like to suggest that any written statements be presented for the record, and that the witnesses briefly summarize their statements as best they can.

To expedite the balance of the hearing, I would like to adhere as closely as we possibly can to the five-minute rule, which means that each of you will have five minutes to make a presentation and then the series of questions will be limited to five minutes for Members.

With that, gentlemen, I would like to ask that any one of you may start your testimony.

Admiral?

Admiral WELLING. Good morning, Mr. Chairman.

I am Admiral Paul Welling, Commander of the Fifth Coast Guard District. My region includes the Delaware River and Bay region. Please accept my prepared statement for the record.

Mr. FOGLIETTA. Without objection the statement will be accepted for the record. There are none; it is accepted.

STATEMENT OF REAR ADMIRAL PAUL WELLING, COMMANDER, FIFTH DISTRICT, UNITED STATES COAST GUARD

Admiral WELLING. Sir, listening to the testimony this morning and several of the questions, it seems to me that we share a general perspective that the Coast Guard, under the command of Captain Murdock, did perform in an exceptionally fine manner and much credit is to him and his ability and the ability of his subordinates.

Our perception of the needs, perhaps, is at variance. We did not perceive the lack of coordination which several of the witnesses have described. I know Captain Murdock is very interested in responding and identifying what our perception was.

Likewise, there is in existence a fairly sophisticated organization within the Delaware River and Bay area to respond to oil spills such as this. There is a good deal of federal and local coordination and cooperation. Again, I think, Captain Murdock is well positioned to inform us on that issue and also to address the chronology of what Coast Guard actions did take place, a question raised by Mr. Carper.

With those opening remarks, sir, I am prepared to attempt to respond to any questions that you or the other Members may have.

[Statement of Admiral Welling can be found at end of hearing.]

Mr. FOGLIETTA. I think what we will do is have the statements of each of the members of the panel and then we can ask questions of the panel as a whole.

Mr. FOGLIETTA. Captain Murdock?

Captain MURDOCK. Yes, Mr. Chairman. I likewise have a prepared statement which I would like to submit.

Mr. FOGLIETTA. Without objection.

STATEMENT OF CAPTAIN LARRY A. MURDOCK, PORT OF AUTHORITY OF PHILADELPHIA, UNITED STATES COAST GUARD

Captain MURDOCK. I was going to give you basically a chronology of the spill response itself, but several of the questions raised about federalization and local response capabilities and command and control, you may be more interested in five minutes of that.

I have a viewgraph here. We could look at where the ship went aground and so forth, but it is, frankly, not overly instructive for the committee who flew over the site and so forth.

I would like to correct, if I may, what I apologize for, and that is the misperception about who was in charge. I am, in fact, the Federal On-Scene Coordinator, predesignated. There was no question in my mind of that when I relieved Captain Roe on Friday that that was the case. There certainly was no question in my mind on that Saturday morning when I received the first phone call. That, as a fact, is a responsibility I could not give up, even if I chose to.

The question has been asked several times, and it occurred during the spill, about federalization. From my perspective, given the rules we have now, the only change federalization would have brought is that I would now have had to contract and pay for the spill out of 311 funds. I would have been using the same contractors that were available—I mean, we only have so many contractors—I would have been using the same Coast Guard people; I would have been using the same Delaware Bay Cooperative people that were being used, in fact, if you will, that I was using.

There was never a question on the part of the P&I clubs to whether they would pay, or how much they would pay, or what they would pay for. In fact, I had a meeting very early on with the P&I representative, and there was no question whatsoever that the approach would be that resources would be put together. When the spill character was something we were not ready for immediately, we would put together spill strategies developed by the Coast Guard strike team people and the NOAA scientific advisers. We would send equipment their way and they would be implemented and used. So I had that discussion early on and that is exactly the way it was handled.

So from my standpoint, federalization would only have created a contracting nightmare for me. It would not have changed the way this spill was responded to.

Now, we were lucky. We have, in fact, a responsible party in this case and someone willing to operate that way. That would not necessarily be the case.

But I would also tell you that in the early hours of the response, no actions we took would have been any different than that. There was no hesitation to call in resources, governmental resources or otherwise, to respond to this spill. It was, I guess, not until seven thirty or eight o'clock—I would have to check the time in the log as to when I actually received a call from the P&I club saying they were, in fact, going to pay.

All of our actions up to that time were based on the assumption that either they were going to pay or we were going to pay out of 311, but there was no hesitation on bringing resources to bear on the problem.

There has been a suggestion that what we need is a regionalization of some sort of a plan. We already have that, sir. There is a group here that I was delighted to find in existence when I arrived called the MALRT, M-A-L-R-T, which means Multi-Agency Local Response Team. It, incidentally, has most of the same players that you have on a regional response team. So it brings all the local and federal people who have expertise to deal with the spill into this office, as a matter of fact—I think we had our first meeting of the MALRT at twelve o'clock on Saturday. I believe it was in this room or maybe the room was divided at the time—to address all the spill issues, and that included state representatives from the three states.

On a 24-hour-a-day basis, for the next week, this area was manned by not only Coast Guard people, active and the reserve, but also by MALRT representatives from all the federal agencies and the three states. It was, in fact, through those state representatives that we were indeed able to do exactly what was suggested, i.e., go back into their organizations, ask for resources, find out what resources they had that might be able to bear on a particular kind of cleanup strategy.

In terms of command and control, we have here on a 24-hour-a-day basis a command center. We use it for search and rescue; we use it for shipboarding; we use it for everything. That, of course, is where the situation was managed from initially. The MALRT people assembled here and we continued a command post here throughout the spill.

There was a second command post established immediately at Sun Oil. They were nice enough to give us space down there. That is where the ship ultimately ended up.

We were trying to manage and deal with the salvage operation from those spaces.

The contractor also established a command post there—that is the prime contractor.

There was, in fact, a bit of a communications problem early on because we simply did not have enough radios that everybody in the system had available to them. That problem was alleviated by Mobil Oil who loaned us a command and control system having 75 hand-held radios. When we received that, we established a command post in Delaware, one at Sun Oil, and when we, in fact, had the communications system in place to supplement what we already had, we did then move a cleanup command post to Delaware.

Incidentally, that command post ultimately—that involved myself—moved back to Sun when we then were dealing with the ship's salvage operations and the final offloading.

The only other comment I would like to say is that while I was brand new to the job, the other players were not. The plan that they had put together was not. While I would certainly be the first to say that we would have liked to have had more open-water boom, we would like to have had more personnel in the first day or two—make that two and half days, as a matter of fact, because we did not really get the number of bodies we needed onscene to do physical cleanup until probably Monday noon.

While I would liked to have had all those things, I was absolutely delighted to have this plan, the people from the Del Bay Cooperative, a very responsible marine industry on the river.

Just as an aside, for instance, when it became necessary for us to control river traffic, the preexistent arrangement here is for a member of the Pilot's Association to report aboard one of my cutters out in the river and work with the Commanding Officer of that unit to control the river traffic. It works wonderfully well. So there were a lot of things in place, a lot of those things worked well, and if we had had more people and maybe some more boom early on, we might have done a bit better.

[Statement of Captain Murdock can be found at end of hearing.]

Mr. FOGLIETTA. Captain, I thank you and let me say welcome to the Port and the City of Philadelphia. We are a city of action.

Captain MURDOCK. That is why I wanted to come here, sir.

Mr. FOGLIETTA. You know, we do things with a bang. You were sworn in on Friday and we put you to work within 24 hours. You performed admirably.

Your statement was upbeat and positive. I am not going to go into questions. We are going to go through the entire panel before we ask questions, but, for when we get around to questions, I would like you to think about in view of the fact that you think the response was positive and you had just two general suggestions, one concerning booms and the other concerning manpower, and you were the man in the center of the action here, I certainly would like to have your recommendations on: what could be done to, number one, prevent this type of spill from occurring in the future, and number two, to get the response teams into action as soon as possible after a spill.

With that, I would like to call upon Captain Bates.

STATEMENT OF CAPTAIN JOHN H. BATES, VICE PRESIDENT, SUN TRANSPORT, INC.; REPRESENTATIVE OF THE AMERICAN PETROLEUM INSTITUTE

Capt. **Bates**. Thank you and good morning, Mr. Chairman. My names is John Bates. I am the vice president of Sun Transport and member of the American Petroleum Institute Marine Transportation Committee. Today I am representing API.

I welcome this opportunity to comment on oil spill response and cleanup. Obviously, our industry is in the throes of a difficult and challenging period. We are making a major effort within the industry and with government at all levels to make improvements in response, containment, and cleanup of oil spills. Progress has been made, but much remains to be done.

As you mentioned earlier, API's oil spill task force has completed its work and issued its report and recommended that significant action be taken by the industry in three major areas: prevention of spills, response to spills, and spill related research. The task force recommendations are in many ways consistent with the direction by the administration and the Congress on this issue. We believe the task force recommendation should provide the basis for a meaningful dialogue in developing a cooperative approach to the oil spill issues.

The task force's recommendations presently are being implemented as follows: The prevention portion of the program is being handled by the API Marine Transportation Committee of which I am a member. The response and research parts of the program will be implemented by a new Petroleum Industry Response Organization, mentioned before as PIRO. To date, companies representing almost three-quarters of the waterborne receipts of foreign crude, Alaskan crude, and heavy fuel have joined PIRO and many more are considering membership. The initial organization meeting will be held the 19th for implementation of PIRO.

I would like to give an overview of the recommendations, starting with response. PIRO will be established to consist of a headquarters group and five regional response centers. It is recommended that the headquarters be located in Washington, with the regional response centers located in the New York tri-state area, Norfolk, New Orleans, Long Beach, and Seattle. The PIRO headquarters staff would consider a ~~PIRO mul~~ti-regional response.

Regional response centers could coordinate their activities with the federal Government's regional response teams and responds to spills beyond local capability. Each center would be manned around the clock with dedicated, trained personnel and equipped with properly maintained containment, recovery, disbursal, and shoreline cleanup equipment. Each center would be sized to have a 30,000-ton spill response capability consistent with 216,000 barrels, or some 10 million gallons of spill.

It is estimated that the annual cost of the PIRO structure will be $30 million to $35 million. That is the operating cost. The capital cost and the annual operating costs would be funded by industry. This would entail a charge to industry members based on crude and heavy fuel oil carried by sea and received by industry members at U.S. facilities.

The API task force also recommended that the Secretary of Transportation manage major spills. The Secretary has a legal responsibility to see that spills are promptly and adequately dealt with, and through the Coast Guard maintains an organization to fulfill that responsibility with support vessels and air craft readily available.

Through its role on the national response team and its involvement in regional response teams, the Coast Guard is well positioned to provide a consistent nationwide approach to spill management, and the Secretary is better positioned than industry to resolve the diverse interests of federal, state, and local agencies which must be coordinated to allow quick and decisive spill management; thus the concept that PIRO would provide equipment and skilled, dedicated people to respond to major spills under the leadership of the Secretary of Transportation.

Moving on to prevention, API recommends several changes that will make tanker operation more pollution resistant. Key recommendations include the following: mandatory participation in a U.S. Coast Guard advisory vessel traffic system. Expansion of federal vessel traffic systems into additional port and harbor areas may be justified by traffic density or navigational hazards.

federal legislation should be enacted to establish higher qualifications and improved standards for all federal and state pilots in the U.S. waters.

Where extraordinary navigational hazards are deemed to exist by the U.S. Coast Guard, vessels should be required to have either, one, tug assistance; two, twin screws; three, bow thrusters; or other suitable equipment enabling enhanced independent maneuvering.

The U.S. Coast Guard authority should be expanded to allow for drug and alcohol testing as a part of officer licensing procedures. Company policies should be established to determine substance abuse and to encourage treatment.

The international convention of Standards of Training and Certification of Watchkeeping [STCW) should be ratified by the U.S. Government.

In addition, improvements are needed in the U.S. Coast Guard training requirements for cargo handling and bridge management.

Alarm systems for automatic pilots should be retrofitted on all tankers.

Ship-specific oil spill prevention and control contingency plans should be required, but presently existing shipboard oil spill response equipment is not effective and would present safety hazards in its deployment. Research is recommended to investigate feasible and safe techniques for onboard response.

The merits of full application of ballast sides, that is double-hulled, double bottoms, and reduced tank size should be carefully studied by the National Academy of Sciences or another independent body, with industry involvement.

The task force's final recommendations deal with research. API recommends an overall program of $30 million to $35 million over five years. The thrust of their proposed program is to initiate work, first in those areas where the greatest potential benefits, especially those operational in nature.

Since the bulk of the proposed R&D programs have operational objectives, they will be managed by PIRO.

In conclusion, the industry believes that the API oil spill task force's initiatives will help prepare this nation to better handle oil spills in a swift and effective manner.

Thank you.

[Statement of Captain Bates can be found at end of hearing.]

Mr. Foglietta. Mr. Leigh.

Mr. Leigh. Good morning, Mr. Chairman. I also have submitted a formal statement which I would appreciate having put in the record, sir.

Mr. Foglietta. Without objection.

STATEMENT OF MR. JAMES T. LEIGH, MANAGER, DELAWARE BAY AND RIVER COOPERATIVE; ACCOMPANIED BY: MILLARD FRENCH, CHAIRMAN, EXECUTIVE COMMITTEE, DELAWARE BAY AND RIVER COOPERATIVE

Mr. Leigh. My name is James T. Leigh. I am the manager of the Delaware Bay and River Cooperative. I am accompanied today by Mr. Millard French, our chairman, our entire executive committee and several members of our organization.

The Cooperative is a voluntary non-profit organization which was formed in 1979, consists of 15 members drawn from the petroleum transportation, refining, marketing, and using industry in the Delaware Valley.

The Cooperative has purchased and maintains oil recovery vessels, booms, boom trailers, boats, and an area-wide communication system with a current value of $5 million. This includes the Delbay, which you have seen and heard discussed already today, a 68-foot self-sufficient vessel, capable of removing 500 gallons of oil from the water in a minute's time.

Members contribute an annual budget of about $450,000. We make the equipment available to rapidly carry out first response action for our members anywhere in the Delaware Valley, the Delaware Bay or the Delaware River to Philadelphia. The Cooperative does not serve as a cleanup contractor for nonmembers, but by agreement with the Coast Guard, we will make our people and equipment available at the Coast Guard's request.

The *Presidente Rivera* spill has illustrated the particular difficulty of dealing with a large spill in a tidal river environment. The close proximity of sensitive shorelines; the continuously changing current directions and current velocity, including the complete reversal of current direction; the dramatic influence that the wind can have on the movement of the oil; and mutual interference of cleanup operations and normal business and pleasure activities are a few examples.

The spill also is a good example of the enormous effort mounted to respond to such situations.

From the outset, Captain Murdock, the Coast Guard's predesignated On-Scene Coordinator, oversaw the management of the response effort. He sought people, and equipment from a wide variety of private, local, state, and federal organizations, including our Cooperative.

Support from the Cooperative was provided in the first hour, and we continued providing assistance until the *Presidente Rivera* passed under the Delaware Memorial Bridge some 15 days after the spill, at which time we were released by the Coast Guard.

Let me outline the Cooperative's support.

I received a call from Captain Murdock's office at 5:25 a.m., only 39 minutes after the reported grounding of the vessel, requesting activation of the Cooperative. I began a series of calls to initiate booming of the vessel and booming of streams tributary to the Delaware.

At 7:15 am., Cooperative boom was in the water en route to the vessel. At seven thirty, activation of the Delbay, which we maintain in Lewes, Delaware, was requested. The Delbay was underway at nine thirty and was removing oil in the vicinity of the Christina River at 4:00 p.m. The Delbay continued to operate on an around-the-clock basis, 24 hours a day, with two crews of three people each, working 12 hours on and 12 hours off until all of the free-floating oil was removed from the river.

At the request of the Coast Guard, the Cooperative also provided additional boats and operators, including three boats that were drawn down from our sister cooperative in New York harbor, Clean Harbors, the industry-sponsored cooperative in that area.

The Cooperative arranged with Mobil—as Captain Murdock has already indicated—to provide a communications system and experts to get the system installed and in operation.

Several members cooperated with the Coast Guard in providing tugs and barges in offloading the ship and in receiving unloaded cargo ashore.

Throughout the incident Sun provided offices and dock space, and services to facilitate cleanup operations. They also took the damaged tanker at their docks, as you have already heard, while cargo unloading continued after the vessel was refloated during the first day. They did all this at considerable disruption to their own business activities, despite the fact that neither the ship nor the cargo belonged to Sun.

Every member I contacted for assistance was willing to help out and did so.

There are lessons to be learned in every spill. The semi-solid nature of the oil in the water slowed removal operations. The Cooperative has included semi-solid skimmings systems in our ongoing contingency planning effort. The American Petroleum Institute has included research and development on such systems in their proposed PIRO program.

In this spill there was an adequate supply of boom to meet all practical needs. However, installing the boom to effectively protect an area in tidal environments with ever-changing current directions and velocities is a demanding task, requiring constant attention.

Intergovernmental and private sector coordination of the cleanup was excellent, due to the continued close supervision of Captain Murdock and the stated willingness of the private owner to take all appropriate cleanup actions.

The Cooperative is, of course, familiar with the Petroleum Industry Response Organization proposed by API with its spill prevention, spill response, and research and development programs as outlined by Captain Bates. We believe it complements the ongoing commitment of the Delaware Bay and River Cooperative, and we look forward to its implementation.

Thank you for the opportunity to present our views and we will be glad to respond to any questions.

[Statement of Mr. Leigh can be found at end of hearing.]

Mr. FOGLIETTA. I thank you, Mr. Leigh. I have lots of specific questions, but I think that we can forego those for the moment.

I think that we all know what the problem was and what the response was. I would like to ask each of you to respond to the general questions, simply stated, what precautions can be taken, especially legislatively, to prevent these kind of spills from occurring in the future?

Secondly, how can we best respond to the spills since they inevitably will reoccur? Captain Murdock talked about two areas, manpower and booms.

Mr. Leigh, your statement was very positive for the work that was done by the business consortium you represent. However, the word that we as laymen have received was that because of the coagulation of this number six type oil, that the booms that were sent out were ineffective to do the job that should have been done, because the oil sank below the effective range of the booms.

We would like for the panel to address this and other areas where, as I said before, we can prevent or more readily and effectively respond to these spills.

I would like to start off again to our right and to your left and go right down the line, getting any responses, if we may.

Admiral WELLING. Mr. Chairman, apparently in this case an anchor was let go and it was not planned to let go, and there was obviously some human error which resulted in the vessel turning to port and grounding, which was apparently the cause of the spill. I do not know how we legislatively can change that.

Mr. FOGLIETTA. Is there any authority, a greater authority that we can give the pilots who accompany the ship in to prevent that kind of thing from occurring?

Admiral WELLING. The pilots take care of only the safe navigation of the vessel, not the running or the maintenance of the equipment. They assume, without notice to the contrary, that the vessel is properly manned and capable of operation. In this case, where the forecastle gang was making the anchor ready for letting it go, and, in fact, the anchor ran, which was not at all normal, nor to be suspected. More normally the problem is you cannot get the anchor to let go rather than it running. So I do not know what legislative action might be taken or considered by you to prevent this particular situation from being repeated.

I pass to others with greater expertise than I have to answer your other questions.

Mr. FOGLIETTA. Captain Murdock?

Captain MURDOCK. Well, sir, most of the kinds of suggestions you will hear with regard to prevention, the Coast Guard, of course, on an international basis, has been heavily involved in trying to deal with those kinds of issues, both in terms of vessel construction, watch standing and keeping, training of crews, all those sorts of things.

Mr. **Foglietta**. Excuse me, Captain. We know we are only going to discuss this informally at this hearing, but if you would present to us a written proposal as to what the Coast Guard believes should be done—we have heard many suggestions, double-hulled construction——

Captain **Murdock**. As I was saying, there are folks in Coast Guard headquarters who are involved with IMO and are working on this on an ongoing basis. We have been involved with those aspects of it for years. I cannot tell you here, because I am not working in that area on a daily basis. Those people are—where they have gotten on certain questions, the question of double-bottoms, for instance, is a complex one.

I could not even swear to you in this case, although it certainly appears from the damage report, diver's reports we got, that double bottoms would have helped in this case.

Mr. **Foglietta**. Would not have?

Captain **Murdock**. Would have helped, in my opinion, but again this is without—we have not yet examined the vessel on dry dock. So those are very complex issues and not something I feel very comfortable with addressing here.

I will say, though, with regard to the crew, we do know that nowadays most casualties are human error. The thing I would say is that going to sea is an arduous life style, and folks, they work very hard at it. So when you begin to have casualties where people do things that are certainly absolutely routine for them, early in the morning, one must look at fatigue and manning of vessels and those kinds of things.

Again, there are Coast Guard personnel heavily involved in that area at headquarters, and it probably is not appropriate for me to second guess where they have gotten to that. But I think it is appropriate to be dealt with on an international basis, obviously.

Admiral **Welling**. I would offer, too, that the Commandant of the Coast Guard, Admiral Yost, has testified at hearings as to the various studies that are currently underway, and they range a large gamut of things. I think you have been aware of those.

Mr. **Foglietta**. I am informed that Congressman Tauzin is getting information and will be sharing with Members of the Committee.

Captain **Murdock**. The only other comment I would make in terms of response is that when you ring the fire bell, the only folks there are the ones from the fire house. When you talk about gathering resources on a Saturday morning or Saturday afternoon or Sunday, or basically anytime, and you ask a contractor to triple or quadruple his work force in a five-hour span, you are going to probably be disappointed in the number of folks he can get. So, I guess if you want folks to respond to the fire bell, you had better put them in the fire house.

Mr. **Foglietta**. Thank you, Captain.

Captain?

Captain **Bates**. Thank you, Mr. Chairman.

I really do not have any firsthand knowledge of what happened to the *Presidente Rivera*, but from what I have been able to hear today from Captain Murdock, the probability of better training for seaman and our seagoing personnel would enhance the likelihood of not having such type accidents. It is very possible that at three o'clock in the morning, the second officer that was in charge of the detail for getting the anchor ready was overtired. But I have no firsthand knowledge of that.

But just to get through IMO and through our Congress, the Senators, for example, is watchkeeping ratification of IMO, which has been sitting there for ages and has not been ratified by this country, where many other shipping nations have ratified. That would be a plus, to get into the training and retraining.

We do have an ongoing manning complement for our ships, which includes the watchkeeping, that has not been ratified internationally. Now, the Coast Guard designates a manning level on U.S.-flag vessels. They have no jurisdiction of the manning levels unless we get some ratification of the watchkeeping and watchstanding.

In response to your other question, I think the PIRO recommendations of stockpiling additional equipment would be a great plus. On the 19th, day after tomorrow, the implementation group will be meeting to put this into process where there will be more and more equipment available, more research, more technology for cleaning up resid. Resid is terrible to clean up. We need that to happen, and then I think we will be in much better shape, not only here, but throughout the country.

Mr. FOGLIETTA. How about the traffic systems?

Capt. BATES. VTS? VTS traffic systems in this case would have not helped at all.

Mr. FOGLIETTA. Not in this case, I mean generally.

Capt. BATES. Overall, that suggestion, we think, is viable, that we need that. What we need is a vessel traffic system that is mandatory, operated by competent—such as we have in the Delaware River—competent personnel who are knowledgeable of the river. We have a station in Lewes that is operated by a pilot, competent, and it works well.

Mr. FOGLIETTA. One other question, any one can comment, especially Mr. Leigh might like to comment on this. That is, what about the condition of foreign ships which are transporting oil—and for that matter, other toxic substances—into our ports? We have heard some horror stories about the condition of some of these vessels and we are concerned. We have considered in committee the possibility of some legislation whereby we might be able to regulate in some way, shape, or form, the conditions of these vessels and to improve safety inspections.

Would you comment on the condition of these vessels? Are some of them as bad as we have heard they are? Is it a smaller percentage or a more wide-spread condition?

Mr. LEIGH. Mr. Chairman, our individual member companies carry out their own inspection programs for the vessels that they work with, and of course, as you know, the Coast Guard carries out a general inspection program. I would defer to one of them who have been involved in the inspections themselves to answer that, sir.

Mr. **Foglietta**. Are the companies involved in your system only American-owned businesses?

Mr. **Leigh**. Yes, sir.

Mr. **Foglietta**. Therefore, it does not respond to my question concerning the foreign vessels.

Mr. **Leigh**. Our U.S. companies that are members of our cooperative do utilize foreign vessels, and they carry out inspection programs on those vessels themselves.

Mr. **Foglietta**. This is a Coast Guard inspection you are talking about?

Mr. **Leigh**. Mr. Chairman, the Coast Guard carries out their legislatively mandated inspection programs. Our individual member companies, in carrying on their normal business activities, inspect the vessels that they work with.

Mr. **Foglietta**. Comment on that, please?

Captain **Murdock**. Yes, sir.

We do inspect these vessels, now.

Mr. **Foglietta**. The foreign-flag ships, also?

Captain **Murdock**. Yes, sir, absolutely. We inspect foreign tankers first for navigational equipment, starting with simply proper charts and updated charts. We inspect them for life saving equipment. We inspect them for cargo handling and controlling of equipment.

So the vessels are inspected on a regular basis by the Coast Guard as they enter our ports. Now, in fact, they must have an up-to-date inspection from us before they can transfer cargo. We have an elaborate computer system that notes discrepancies, and if they have at a certain time a discrepancy, they would not be allowed to come back into our waters until those might be corrected. So there is a very active program in that area.

Mr. **Foglietta**. Mr. Leigh, how do you plan for the possibility of a spill occurring? Do you try to find out what type of oil is being brought in?

Mr. **Leigh**. Yes, sir. I would like to distinguish between two elements of our planning as an industry. The Cooperative does produce a contingency plan and your Committee has received a copy of that, sir. That provides for the activation and the utilization of the cooperatively owned resources as well as access to individual member company resources, which are made available through the cooperative.

The individual companies carry on additional contingency planning, dealing with our operations. So it is a broad spectrum approach. In both cases, we work with the Coast Guard and the rest of the local response community in considering those planning activities. We carry out regular training efforts, jointly and individually, to evaluate our contingency planning, and we update these on an ongoing basis.

Mr. **Foglietta**. Congressman Saxton.

Mr. **Saxton**. Gentlemen, I have been complimentary of the job that you have done with regard to this spill in particular. I meant that very sincerely. However, I would say in a general sense that the overall tone of your testimony is that given the fact that we had a contingency plan in place, and given the fact that things went what you may consider to be relatively well in terms of the lack of environmental damage, that you are pretty much satisfied that this spill went as well as it did, or the cleanup from it did.

I would say that I am glad that you are indicating that you do not agree with me.

I would say that if that is the case, either from the industry perspective or from the Coast Guard perspective, we are now going to differ. It is not adequate or satisfactory to have taken as long as it did for this spill to have been cleaned up, in my view. It is not satisfactory for us to have entered upon the cleanup activities, expecting to use the Delbay to skim up this oil, to find that it would not work. It is not satisfactory for us to put booming across the Christina River to find that it does hold back this particular number six oil. It is not satisfactory for a Member of Congress to arrive on the scene, roughly 48 hours or a little bit more after the spill occurred, and to hear Captain Murdock trying his best to find communications equipment so that we could, as he put it at that time, talk to each other. Those are not satisfactory elements of this cleanup.

I would say to Mr. Leigh and to Captain Bates in particular, I appreciate, very much, the information that is included in the American Petroleum Institute's study and the PIRO suggestion. I appreciate your efforts. I think you are moving in the right direction.

But, I guess in general what I want to say is that I as a representative of the people who live in this area and depend on the river for the economy, I am not satisfied at all with the procedures that were gone through—I know you all did the best you could, given the situation—but I am not satisfied at all with the outcome, with the fact that it was 48 hours—in fact, it was Tuesday morning, I think, that Captain Murdock will readily say, it was Tuesday morning before we began to make significant progress in terms of actual cleanup. Well, I was here at twelve o'clock Monday, Mr. Chairman, and there was not significant progress made at that time.

So I just would like to ask you in a general sense, given the facts as I see them at least, and as I think you agree with some of them, what is it that we need to do as Members of Congress, as officials and officers in the Coast Guard, and as industry, what is it that we can do to improve so that next time we have a number six oil at four o'clock on a Saturday morning in the Delaware River, that we will have it contained in short order so that we do not end up with a 25-mile-long slick?

Captain MURDOCK. I think one thing—and not to say that nothing can be done; there are certainly things that can be done—but I think we also have to recognize that when the vessel container is first broken, anything short of instantaneous response is probably going to end up with a sizable amount of oil a long way down the river.

The river currents here run up to—and I welcome any mariner to tell me—but it exceeds two knots, three knots. It is going to be almost impossible, if not impossible, to boom out in the open river.

Our most effective recovery system, in addition to the Delbay, was the Coast Guard open-seas boom towed in corralling this material. It was towing with the current, so you have got a low velocity difference between the material and the boom itself, so you could go—the relative speed between the two was well under one knot.

Those kinds of techniques have to be employed, and as Mr. Leigh said, the river environment—when I flew over prior to my change of command with Captain Roe, we looked at Raccoon Creek and Old Man's Creek, and I asked him, I said, "What kind of current run up and in and out of those places with the tidal flow?" He expressed several knots of current. Well, you can only hope to do deflection kinds of booming and things.

I think you were absolutely right—the key to this thing is keeping it in the container in the first place. Failing that, it is having the personnel and equipment to respond literally in—I want to say minutes, but I do not think that is physically possible.

I would be happy to see—from my own perspective—to see PIRO's suggestion, having a lot more resources in the upper river, frankly. But that is only because this is where I am, and it seems to be where I have most of my problems. It is where I had my most recent problem. I also understand that we do get spills down the lower bay and it is important for them to be down there, too.

So I do not want to—they have done a lot of study and it probably is inappropriate for me to second guess them, not having seen the material that they have worked with, but I certainly would applaud anything that is going to give us more resources sooner.

Mr. SAXTON. If I may just follow up with regard to a couple of instances.

What I said about the lack of capacity to communicate by radio is true. Is that correct?

Captain MURDOCK. Only in the overall sense, sir. Each of the organizations involved in this had good communications with their own elements. What we lacked was a system that we could lay over the top of that, that could, in fact, give us the ability to deal with all on the same——

Mr. SAXTON. So you could talk to each other?

Captain MURDOCK. Exactly, including the various command posts.

Mr. SAXTON. In other words, perhaps you could not communicate directly with the Delaware National Guard, or perhaps you could not communicate effectively with——

Captain MURDOCK. Exactly, and we wanted a system to lay over the top that would give us absolute communication with everybody.

Mr. SAXTON. That was a conversation that you and I had here on Monday morning, and you said, "It is going to cost us somewhere"—it did not end up doing that—"It is going to cost somewhere between $15 and $25,000 to get this communication system. We really need it." Yet, we did not have it, and it would seem to me that if we had adequately planned—not you, obviously—but we, if we had adequately planned, we would have known that we would need a communications system to let various agencies that were involved in the cleanup activity communicate.

Captain MURDOCK. Yes, sir. But I think we need to differentiate between planning, i.e., knowing what we need, and being able to get what we need. Each of those radios would cost $4,000. We are talking 75 hand-held radios at $4,000 a pop. Now, I do not know what my budget is here; I have not even had a chance to get with my executive officer since I came here, but I guarantee you, it is not 75 times 4,000——

Mr. **Saxton**. I understand that, I really do, and we know about fiscal constraints very well. But you ended up getting it from Mobil, and after—obviously, I guess that must have been about Tuesday?

Captain **Murdock**. No, it was earlier than that, because they were setting up command posts, I think, on Sunday. They started to move those into place.

Mr. **Saxton**. Well, I was here on Monday morning at nine thirty, and that was when you were looking for radios.

Captain **Murdock**. Well, as Mr. Leigh, or someone, allows how this system required three mobile technicians and two Coast Guard radio men to set the thing up. It was not something you had in the first 30 minutes. It is an elaborate system with antennas that had to be put up on the Delaware Memorial Bridge, et cetera, et cetera. So it was quite a process.

Mr. **Leigh**. It was requested Monday afternoon, and it was being installed on Tuesday morning.

Mr. **Saxton**. It was requested Monday afternoon, that is right. It was installed Tuesday morning. So that was Saturday, Sunday, and Monday when we could not communicate between agencies effectively.

Mr. **Leigh**. There are, as the Captain has said, several excellent communications systems in the hands of the several organizations that were involved in response. The Cooperative has an installed communications system, which is on the air 24 hours a day, which serves the entire area of our responsibility that I outlined for you earlier.

We did not have sufficient radios in that system that we could provide them to all agencies involved. That is the reason that we went to Mobil, knowing that they had a much larger array of hand-held radios. But again, on particular sets of frequencies, that were not shared by all of the different organizations that were responding.

Mr. **Saxton**. Mr. Leigh, you have the Delbay; that is your vessel, correct?

Mr. **Leigh**. Yes, sir.

Mr. **Saxton**. Were you aware that it would not work on number six oil when it was in the state that this number six oil was, having the temperature falling below 93 degrees?

Mr. **Leigh**. As a matter of fact, sir, it did work on number six oil, and continued to work, as I have said, for the duration of the time that oil was afloat. It recovered oil at a much slower rate, because of the particular nature of the oil, and the fact that we were not able to say——

Mr. **Saxton**. Would it be fair to say that it did not work as you had expected?

Mr. **Leigh**. No, sir. It did not work at maximum effectiveness and efficiency. It worked exactly as we expected it to work. When we realized that we had that kind of semi-solid oil on the water, we knew that we would not be able to use our onboard pumping system.

Mr. **Saxton**. I did not see it in operation, but apparently Congressman Weldon did. In fact, I know he did, because he testified to that or mentioned that in his opening statement. He mentioned that the grates were clogged, as I believe, if my memory serves me correctly; most of the television reports indicated also.

Mr. **Leigh**. They became clogged, our operators dealt with that, and as I said, they operated on an around-the-clock basis removing oil. Their procedures were altered from that that they would have used for free-flowing oil. The recovery rate was less than it would have been for a free-flowing oil.

Mr. **Saxton**. So the Delbay continued in operation through the entire period of the cleanup?

Mr. **Leigh**. That is correct. After the free-floating oil was removed, she stood by the vessel at the request of the Coast Guard in the eventuality that additional oil would be released, and as a matter of fact, was involved in removing some oil when a small——

Mr. **Saxton**. Does your contingency plan involve the use of small boats in any way?

Mr. **Leigh**. Yes, sir.

Mr. **Saxton**. Can you explain it?

Mr. **Leigh**. A first responsibility that we agreed to is to provide initial booming of tributaries that would be threatened by spills on the Delaware. That involves the utilization of small boats.

Mr. **Saxton**. Does your knowledge, the knowledge in the oil industry generally, that when number six oil spills, that it becomes globs?

Mr. **Leigh**. At the temperatures that were involved in this——

Mr. **Saxton**. What are your plans to clean up those globs?

Mr. **Leigh**. The general approach planned by our member companies is that which was utilized in this case, and that is dealing with semi-solids and using lifting equipment to get it out of the water.

Mr. **Saxton**. How many small boats would that involved, would you think, in an oil spill of this magnitude?

Mr. **Leigh**. The more appropriate approach is the use of larger equipment, such as was brought in on this spill, the larger clamshell cranes and hopper barges. That got the bulk of——

Mr. **Saxton**. Where did that equipment come from?

Mr. **Leigh**. From the local resources.

Mr. **Saxton**. When was it put into action?

Mr. **Leigh**. I do not have the details on that.

Mr. **Saxton**. Tuesday?

Mr. **Leigh**. I am not sure.

Captain **Murdock**. The first strike team Coast Guard boom was deployed Sunday evening. Then, of course, it was deployed then on until we had most of the floating oil out by Wednesday.

Mr. **Saxton**. When I was here on Monday, Monday morning, you had indicated that was new, different, additional equipment that would be here on Tuesday.

Captain **Murdock**. Yes, sir. Monday evening they had used the strike team boom and were in fact—I'm sorry, Sunday evening they were trying to offload it from all the material that had gathered Sunday evening. They were offloading that to redeploy it Monday. We were bringing in a second strike team open-water boom from Narragansett—it was sent back to us.

In fact, the first one was dropped off to us in route to Narragansett as probably the only good news about being the third spill in a row. We diverted some resources in route to Narragansett to us, and then we also got a similar boom, not exactly the same, but similar boom from the State of Maryland. That was also deployed maybe not until late Tuesday.

Also, we had three systems of herding the material with a larger, stiffer boom, if you will, and then clam-shelling the material, physically lifting it out of the water.

Mr. SAXTON. There were three separate operations?

Captain MURDOCK. Yes, sir.

Mr. SAXTON. The first operation went into effect on Sunday or Monday?

Captain MURDOCK. Sunday evening was the first use of that, yes.

Mr. SAXTON. The second one?

Captain MURDOCK. Again, I would have to check the log, but it was Monday or Tuesday.

Mr. SAXTON. The third one?

Captain MURDOCK. Again, Tuesday, probably, we brought that boom up with two Coast Guard Aids to Navigation boats, one from Baltimore and one from Cape May.

Mr. SAXTON. So it took us, with our best intentions and our best efforts, from Saturday until sometime Sunday to get the first one in place?

Captain MURDOCK. That is correct.

Mr. SAXTON. Saturday until sometime Monday or Tuesday morning to get the second one in place and the third one definitely on Tuesday?

Captain MURDOCK. Yes, sir.

Mr. SAXTON. Captain Bates, you indicated three things: one, that the new organization PIRO as recorded in your report, would be helpful, and that that is the industry's response and the answer that you propose at this point to make us all feel safer that these types of incidences will be cleaned up more quickly and more efficiently? Correct?

Capt. BATES. Not guaranteed, but do our best effort; there is no guarantee. At least we are moving in the right direction.

Mr. SAXTON. Is it true that during the 1970s, as far as you know, that during the trans-Alaska pipeline debates, that these same types of provisions were made in Alaska, and that they were to be funded by the industry, and that they were quietly disbanded in 1981?

Capt. BATES. I have no knowledge of that. I was a seagoing master in the early 1970s.

Mr. SAXTON. Would you be able to check on that for us and get back to us?

Capt. BATES. Sure, I will be glad to.

Mr. SAXTON. My information is that a similar situation or proposal was established—operation was established in Alaska during the 1970s, and for some reason beyond what I have been able to find out, it was disbanded in 1981.

Capt. BATES. I will be glad to check that.

Capt. **Bates**. Are you familiar with the training that the river pilots in the river Delaware obtain, and can you tell us how that might be compared to the federal regulations for pilots?

Capt. **Bates**. I really am not familiar that much with their training. I do know they have an apprentice program. It is probably eight years, but I would be speculating. I let the pilots answer that for you.

Mr. **Saxton**. Are you aware of any accidents in the river Delaware or the Bay or of any place on the East Coast in recent years that has been attributed directly to pilots, pilot error?

Capt. **Bates**. I do not recall any.

Mr. **Saxton**. I am curious to know how you would suggest that pilots ought to have upgraded training.

Capt. **Bates**. I stated all federal and state pilots, as a continuous training program—my belief that currently the Delaware River pilots are training in Grenoble, France, right now, all pilots. So any seagoing type job, master, pilot, mates, are in a continuous training mode.

Mr. **Saxton**. I cannot speak for pilots around the country, but I can tell you this, that with regard to the Delaware River and Bay pilots, they are all Academy graduates, Merchant Marine graduates, in order to become one today, and they have a five-year period of time which they have to serve an apprenticeship, which I believe, if I am not mistaken, involves something like 1,200 trips up and down the river before they are qualified as pilots. I believe that is pretty extensive training to me.

Capt. **Bates**. I am sure that is true.

Mr. **Saxton**. Well, I could talk for a long time about the people that we need, and the booms that we need, and the boats that we need, but I hope that we have demonstrated from the point of view of the industry—which I quoted from in my opening statement, which says that we are not prepared for catastrophic oil spills, from other evidence that we have that federal Government has some role to play here in making this situation better.

While we appreciate your efforts here, and look forward to working with you, I hope that we can look forward to working together to make sure that the situation one year from today is safer one for the Delaware River and the ports throughout the country.

Captain. **Bates**. I share that enthusiasm, working with the Government, to be sure that we get there, and I would like to see it happen a lot sooner than one year from today. MR. Saxton. Thank you.

Mr. **Foglietta**. Thank you.

Tom?

Mr. **Carper**. Thank you, Mr. Chairman, and to each of you for your presence here today, for your testimony, for your efforts during the course of the last several weeks to address this disaster, we thank you.

I think it is clear that we use a lot of oil in this country; it is clear that we are not producing domestically nearly enough to meet our demands; it is clear that we are going to continue to have ships ply the Delaware in bringing in oil to our region; it is clear that we are human beings and we will continue to make mistakes, including those people who operate those ships; it is clear that we can do a better job, we on this side of the table and you in your professions and in your industries as well.

In his questioning, Mr. Saxton asked what the Congress needed to do, what do we need to do. I want to come back to that. We are going to go back to Washington later this afternoon, and in the next several months we are going to bring to the House Floor major oil spill liability legislation. There will be efforts on the House Floor to amend that bill to reflect in one way or another what we have learned here in the course of the last several weeks and the next few weeks.

I really want to get back to the question Mr. Saxton asked and that is—this is for Admiral Welling and Captain Murdock—what do we need to do? For those of us who work in the Congress, what do we need to do to enable you to do this part of your job better? What do we need to do?

Admiral WELLING. In response to that question and follow-up to Mr. Saxton's, I, too, share the view that if all the material were readily at hand to be applied in the spill, then more of it might have been cleaned up more rapidly. But as Captain Murdock has testified, in terms of the availability of the people, all the people that were available were, in fact, brought in as early as possible. Large booms had to be brought from afar and that takes time.

Mr. CARPER. Let me interrupt, excuse me. We know that the Delaware River is the second most heavily trafficked port for oil in the country, and yet we have to bring the booms and the equipment from afar. Does that make sense? We know it is a treacherous channel. We know that ships run aground regularly, too regularly. Does it make sense that we have to bring the equipment from afar?

Admiral WELLING. I think that all of us could assume that it might not make too much sense. The Coast Guard has very limited authority. We do not have the authority to prescribe to industry what they stock or do not stock, and where they stock it.

But the question you pose has the answer, it appears. The question provides its own answer, and that is, that it does seem silly that the gear is not more readily available, in my mind.

Mr. CARPER. Let me go back to my initial question, what do we need to do differently in the Congress? We are drafting this legislation—the other legislation, Mr. Saxton has talked about his measure. What do we need to do?

Admiral WELLING. I think you need to continue your investigations, sir, and give the Commandant of the Coast Guard and his headquarters staff an opportunity to provide answers to that question. I am not confident to respond.

Mr. CARPER. Captain Murdock.

Captain MURDOCK. Well, the only thought I would have is, that when you devised this system of bringing resources to bear, I would look at how those systems can be maintained on a long-term basis. We have had four major spills in the last four years, three of them in '85–'86 time frame, and now this one.

But the system needs to isolate itself from the vagaries of the budget process and ongoing maintenance problems. These booms have a shelf life. There are maintenance problems associated with them, as there is with all equipment. So your system ought to address how does that thing maintain itself over the long haul.

As Congressman Saxton alluded to, there may have been more elaborate plans in Alaska at one time, and they disappeared for whatever reason. So, I would say that your system ought to provide the long-term care and feeding of that response mechanism.

Interesting, as the Admiral pointed out, the materials we got had to come from afar—well, they came from the Coast Guard strike team.

Again, if you want people to respond to the fire bell, my feeling is, there better be firemen in the fire house.

Mr. CARPER. Let me interrupt. The nature of the system that we have here, though, the cleanup system, is: ship runs aground, I understand they contact your headquarters, and almost immediately an agent for the ship is contacted to find a private sector provider or contractor to do the cleanup work.

I would like to think that all the accidents are going to happen maybe mid-morning on a Monday, and the weather will be lovely, a lot of people anxious to go out onto the river and do the work. We found it more often than not, the accidents occur at night, the weather is not the best, and it is not—seemed like more often than not, it is on a weekend, when people, frankly, do not want to leave what they are doing, their homes, their families, their recreational activities, another job, and go to work doing this kind of efforts.

You said several times we need more people in the fire station if we are going to do the work. Are you saying we need more people in the Coast Guard?

Captain MURDOCK. No, I am saying—you will not hear me say that we do not——

Mr. CARPER. Well, what are you saying?

Captain MURDOCK. I think it has to be addressed from several points of view. First of all, the research and development efforts of how you deal with particular products, with equipment. So it is not so labor intensive.

This spill was significantly smaller than the one they had in 1985, and yet we employed more bodies in this spill than we did then because of the nature of the product and the physical requirements, manpower requirements, to remove it from the beaches. Had we been able to keep it in the river, as opposed to on the beach, and used the larger equipment, that would certainly have been to our advantage. So it is not just a matter of more bodies in the fire house—and I did not mean to give that impression, because—at that point, you have lost it basically, when you are now mucking around on the beach. But the character of what we were at this time did require, basically, a manpower intensive cleanup right from the start, once it had gotten ashore.

So it requires some research and development, it requires some ongoing effort, it requires—yes, indeed, if you are going to talk about response, whether it is Saturday morning or Monday morning, it is more people in the fire house.

Mr. FOGLIETTA. I see some conflicts here, it seems to me, Captain, that you are saying, under all of the circumstances that the response was as best as could be expected.

Captain **Murdock**. No. Under all the circumstances, the fact that we had a spill already going on in Narragansett and some contractor folks had already gone up there and the whole thing——

Mr. **Foglietta**. Whatever the circumstances are.

Captain **Murdock**. In other words, we played the hand we were dealt, yes.

Mr. **Foglietta**. Yet, Secretary Skinner talks about the fact in these kinds of situations we should have equipment and operations activated within 4 to 8 hours after a spill. Captain Bates in his report talks about 7 to 14 hours. We are no where near that. Sunday night marked the beginning of the clean-up operations, how many hours was that after the spill? Thirty hours?

Captain **Murdock**. Yes.

Mr. **Foglietta**. The questions that we are presenting here through Congressman Saxton and Congressman Carper is, if under the circumstances the best that you can do is 30 hours, and the experts say that it should be done in 4 to 8 or 7 to 14, then there is something missing. What is that that is missing that we might be able to provide with legislation or some other means?

Captain **Murdock**. Again, what was missing in this particular case was we did not have a high seas boom here in the Port of Philadelphia.

Mr. **Foglietta**. You are saying then that there should be more equipment available? Is that what you are saying?

Captain **Murdock**. Certainly.

Mr. **Foglietta**. So we should have more equipment available throughout the country?

Captain **Murdock**. I do not think there is any question of that. People were sending equipment—again, the boom that we did get here was in route to Narragansett and some of it was brought back from Narragansett. It is a limited resource. When it came time to offload a vessel, there are certain kinds of pumps that were in short supply.

Yes, these are critical resources, and they are very expensive resources. That is why I was alluding that the system you devise has to not only get you those resources once, it has to maintain them and keep them on hand five years—if we could go, if we are real lucky, we could go the whole rest of my tour here without another large spill, and I hope we do, but I hope there is material here for the next guy.

Mr. **Foglietta**. What assumptions do these goals make, the 4 to 8 by Skinner or the 7 to 14 hours by Bates? They assumed that we should have more equipment? They assume we should have more manpower readily available?

Captain **Murdock**. I think those time frames are extremely critical as to where you are—I mean, what might be adequate somewhere else, may not be adequate here in river environment, et cetera. I think you have to look very closely at the time frame you are talking about. That is part of the planning process, where is your problem, where are the resources you have to protect, for instance.

I look at the situation down at Pea Patch. It is almost immediately adjacent to Texaco. At least we had many miles of river before we got to Pea Patch, and we did have time to put out the collection boom there. But all those times are really related to the traffic and the things you are trying to protect and a whole host of things.

So I am not comfortable with defining it as 14 hours or 5 hours or any other number, quite frankly. That is dependent on where you are.

Admiral **Welling**. Mr. Chairman, on the resource issues, at one time the Coast Guard had three strike teams. We have one strike team now. So that is an issue, a resource issue. We have talked about plans. This is a plan that was published by Captain Murdock's predecessor in May of this year to deal—it is called the Local Response Plan and it covers a whole host of things. It is a collaborative effort with both the states and the federal Government entities that are located locally. I just thought I would mention that, and if the Committee does not have a copy of it, I offer to you.

Captain **Murdock**. This is under active review right now. It started with the *Valdez* incident. Each local onscene coordinator is required to go back and review his plan now for a worst-case scenario. We have a group that met, actually met about the second week of this spill, the same MALRT people and response people, trying to look at what our worst-case scenario is for the Delaware.

So this is the plan published in May. It is under active review and will undoubtedly be changed in light of not just the worst-case scenario, but what we have learned in this case, between all the players.

Mr. **Carper**. Let me reclaim my time, just very briefly.

The legislation that I have talked about and others have talked about today that has passed the House of Representatives several times, and is hopefully going to pass again soon—may even slip through the Senate this Congress—that legislation provides not only money for cleanup, not only money for compensating people in businesses that are damaged, but also provides the resources so that you folks—not necessarily you two gentlemen—but the Coast Guard, the EPA, can figure out, "How do we clean up the number six oil that might be spilled in the Delaware or anywhere else?" It provides money so that more booms can be purchased and can be redeployed in places that might be more accessible, provides more money for strike teams that you could have more bodies in the fire house.

As I listen to whatever you are saying, I think part of our solution is at hand, it is in the legislation that is about to come before the full House for consideration. What would be real helpful for us as legislators is to know what further changes we need to make to that legislation before we finally send it to the Senate.

One last question that relates to this is, does the Coast Guard need specific authorization to require that the redeployment of assets that are not your own, that might be from the private sector, whether it is a Delbay skimmer or other equipment that might fall into private sector hands, it is not yours, they put it where they feel that it can be best used—our governor called earlier for federalization of the cleanup effort. Is that authorization that is somehow needed? What I would ask of Mr. Leigh or Captain Bates is to give their perspectives as well.

But Captain Murdock, first, do you need specific authority—we talked about does it make sense to have the most treacherous part of the channel, maybe located in areas not close to where we keep the equipment that we need. I think you said no. Do you need authorization to have that equipment moved, being that it is not your own?

Admiral WELLING. The Captains-of-the-Ports are On-Scene Coordinators, not On-the-Scene Commanders, and the terminology is such because they do not have command responsibility, nor do they need it. I think Captain Murdock can tell you of his own experience working with the group here as to whether he needed command authority versus coordination responsibility. I understand him to have said that he had all the authority that he needed.

Mr. CARPER. He had plenty of responsibility.

Admiral WELLING. And he had all of the authority that he needed. But that may be personality dependent and situation dependent. So perhaps he would care to explain.

Captain MURDOCK. Regarding the moving of materials once the spill had started, there was no problem.

Mr. CARPER. Not once that it started, but before.

Captain MURDOCK. Prepositioning, I can only assume since the MALRT group and the Del Bay Cooperative and the Coast Guard have worked on this problem for a long time, that the Delbay is located where it is for a good cause.

Yes, on the face of it, from my point of view, having dealt with a spill up here, I wish it had been up here. But I also can—and I will only assume—that there was some reason for it to be where it was. Again, they had problems down there, too, and problems that that vessel can deal with.

I cannot second guess what I assume was a good review of where they placed the limited resources they have.

Mr. SAXTON. Just on two points. There has been talk about having equipment near where any action might occur. Very difficult to do. One of the suggestions is that booming might be placed somehow on each ship. Is that a practical notion?

Captain MURDOCK. In my view, I think that would be extremely difficult. The first thing you do in the spill is you control the source. In the case of a ship aground, you are talking about transferring product within the ship, you are talking about lightering off to a barge—there is plenty for that crew to do.

I think it might be lost time to have them trying to deploy a boom from a ship, which would be very difficult to do to begin with without small boats.

Mr. CARPER. Is it practical to have a boom ship or a boom boat that might follow a ship up the Delaware Bay and River?

Captain MURDOCK. I suppose anything is possible, sir.

Mr. SAXTON. Thirdly, and this is it, the most logical explanation of what happened with regard to this anchor being dropped is what you have told me privately and again today about the crew, perhaps, being tired. Is it reasonable to talk about, just as our pilots get on the ship five or six miles out in the ocean, is it logical that other personnel might also get on a ship someplace out in the ocean and come up with the ship? There is a fresh crew that knows the ocean, that knows operational procedures, that knows English?

Captain **Murdock**. The problem, of course, would be them knowing the ship. But I am certainly not an expert in vessel manning and I probably should not address that. I think what you see is an arduous life. Whether he was tired from that morning or the week he just put in, I could not say, and it may not have entered into this casualty at all. It was pointed out watchkeeping and manning standards are an international issue, and the Coast Guard is heavily involved in that, and I will assume that they will continue to be heavily involved and work on it.

Mr. **Carper**. I really have not heard from Captain Bates and Mr. Leigh on the prepositioning and whether or not the Coast Guard might need some authority to redeploy some of that equipment.

Captain **Bates**. First of all, as I commented earlier on the PIRO location at Cape May—Captain Murdock and I were whispering at each other—it is not in concrete. The implementation group that is meeting on the 19th are looking further in to whether there should be some at Cape May, some in Camden, some in Philadelphia, for the PIRO stockpiled here.

But the point that I am trying to make is that I do not feel that the Coast Guard needs the authorization to command the location. The industry and the Coast Guard and the DBRC here in this river have worked very closely together to get where we are.

Thank you.

Mr. **Carper**. Mr. Leigh, do you want to add anything to that.

Mr. **Leigh**. Yes, sir. I would like to touch on both recovery equipment and booms. We heard about deeper booms having been utilized in this situation to the advantage of the ultimate cleanup. We heard reference to the Delbay and some suggestion that maybe it would be nice to have it up here. The Cooperative needs to get the biggest bang for their buck, just as every other organization does. They do have an ongoing contingency planning effort, and within the last two years they have placed another oil recovery system in operation in the industrial area of Philadelphia and Marcus Hook.

It turns out that that particular system, again, was not the most effective, was not particularly effective on this semi-solid spill, but it was well selected and well chosen in conjunction with the Coast Guard for the kinds of situations that you might have with regard to liquid spills and very shallow water environments, where there is lack of access from roadways and so forth. The system is excellent in supplementing the resources that we had before that time.

The boom that the Cooperative has in inventory, we have several different types of boom in inventory, again selected to provide particular protection for particular situations. More is probably better. Bigger may be better. In some case, bigger is not better. The small booms have the advantage of being able to be deployed rapidly with fewer people and smaller vessels.

We believe that PIRO is indeed an excellent complement to the existing resources of the Cooperative, and we strongly support the implementation of that program.

Mr. **Carper**. Mr. Chairman, could I ask for one question to be responded to in writing? It is a question involving the National Guard. The Delaware National Guard was called up. Captain Murdock, you talked about more bodies in the fire house, that is one way to get more bodies in the fire house in a hurry. I simply would ask you and/or Admiral Welling to respond to us to let us know how the National Guard might be used to provide initially, in the first few hours after a spill, to supplement the manpower needs while our folks in the private sector, the contractor, are trying to gear up.

Thank you.

Mr. **Foglietta**. Gentlemen, we thank you so very much for being here today. It was extremely informative.

I would like to announce that the other two panels will be called to testify at a future hearing. We apologize, but we did not expect that there would be votes this afternoon. The Members do have to get back to Washington.

However, there is one person who is here, who I would like to hear from, briefly. That is Ms. Lynne Frink, president of the Tri-State Bird Rescue and Research organization, who has come up from Delaware to testify and we would not want you to have to come back again. So we would like to have you come forth and testify for us.

STATEMENT OF MS. LYNNE FRINK, PRESIDENT, TRI-STATE BIRD RESCUE AND RESEARCH, INC., WILMINGTON, DELAWARE

Ms. **Frink**. I am honored that you are willing to forego lunch a little longer for me.

Tri-State Bird Rescue and Research is an incorporation of professional scientists, veterinarians, pathologists, physicians, and concerned citizens which organized over a decade ago and have earned an international reputation in the studies of the effects of oil on birds and also the studies of development of treatment protocols.

We have rehabilitated thousands of birds that have been oiled, ranging from a little oiled Eastern Bluebird to oiled Bald Eagles. Our release rates, to our knowledge, are the highest in the world.

There are only two active oiled-bird rehabilitation and research organizations in this country: Tri-State Bird Rescue and Research on the Atlantic Coast and International Bird Rescue on the Pacific Coast. They have been in Valdez since March of this year.

In the *Presidente Rivera* spill, I think the distinguishing features we saw with regard to our operation are number one, the press, the public and the government have become so extremely sensitized to oil spills in the last seven months, that we were required to do almost continual updates, reports, and estimates for numerous agencies and media people throughout the spill.

Number two, this oil was, in our thirteen years experience, a very unusual oil for the types usually spilled in the Delaware River. I understand from previous testimonies it was difficult to boom; it was difficult to skim. It certainly was extremely difficult to remove from the animals that were contaminated by it.

The other thing I think is important to know is that these oils contain polycyclic aromatic hydrocarbons. It is a fraction of oil, or a type of component of oil that can have adverse of carcinogenic effects and should have certainly more stringent safety precautions than are normally done for cleanup efforts. This aspect of oil spill cleanup seems to be one that is overlooked quite often in oil spill responses. We have to do that, because we incorporate volunteers who sign release forms, and we do gas chromatographs at every spill, every oil that spills in the river.

When we organized in 1977, the political and the emotional climate surrounding oil spills were very similar to what they are today. Congressional investigations were held, state legislative inquiries were initiated, environmental groups staged protests. The rhetoric everywhere was very plentiful and also very passionate. Unfortunately, after a few months or a year, a lot of that concern dissipated.

However, Tri-State maintained its interest in oil spills and in oil spill response, and we were joined in that interest, in that commitment to oil spill containment, by another group which is the Delaware Bay and River Cooperative. They, like us, have maintained an alert 24 hours a day, 365 days a year, to deal with oil spills for the past 10 years.

So I hope that you take their comments into consideration when they testify as they did today.

We organized with the state and federal Fish and Wildlife agencies and with area industries and with the Coast Guard, and developed a working plan 10 years ago that we have maintained every year, whether there was a spill or not. There were some years that there were not spills.

We think we have maintained a very good communication and working relationship over that decade.

However, for the government agencies involved in oil spill responses, my personal opinion is that an oil spill response for them can at best be thought of as an added burden. Oil spill responses are no government agency's sole responsibility. The Coast Guard still has many other duties, and I think they are a woefully underfunded agency for their duties.

The Fish and Wildlife Service and state and federal personnel have refuges to run; they have numerous environmental programs that they have to cope with and that are ongoing in addition to the extra burden that an oil spill demands of them.

So I think it is very hard for them, sometimes, to respond to oil spill crises. In fact, I think on our river it is only private agencies like the Delaware Bay and River Cooperative and Tri-State that take this responsibility as one of our major commitments and are always focused on that and able to do that kind of a response.

That is a pretty brief overview of my feelings, except for two special concerns I have with this new awareness of and concern for oil spills.

One is, I am concerned with the potential waste of vast amounts of money. We are getting calls from government agencies and also academic agencies saying, "Hey, we hear that government is going to release a lot of funding for oil spill studies. Quick, give us some ideas for grant proposals so that we can get in on this money." These are people who have previously shown very little interest in oil spills.

I am also concerned that congressional inquiries usually focus on the victims or the alleged perpetrators of the spill, and those people usually can tell you all about the problem that just occurred, but are not often familiar with the solutions. I think that when you are looking for solutions, it would be best to direct attention to people who have had a long standing commitment to fighting oil spills.

In that respect, I am very pleased that you were willing to have me come and speak to you today.

If you have any questions, I can talk to you more directly.

[The statement of Ms. Frink can be found at end of hearing.]

Mr. FOGLIETTA. Thank you so very much, Ms. Frink, for being here with us today and giving us the comments that you have given us.

I would like to acknowledge the presence of Congressman Borski appearing on our panel today.

I understand there is a question from Congressman Carper.

Mr. CARPER. I just want to say to Lynne, to you and all the people who serve in your organization, I think you do the Lord's work. Those of us at this table get paid for the work that we do. There are a lot of folks who work in conjunction as volunteers for Tri-State Bird Rescue and Research who get nothing for their efforts except the satisfaction that they are making life possible for a lot of birds and wildlife that otherwise would not have a chance to live.

Just one quick question; it is pretty much the same question I asked our Coast Guard friends. What counsel do you, either now in oral testimony or later in writing, what counsel do you have for us as we move ahead legislatively? What further does the Congress need to do?

Ms. FRINK. You need to equip the people that you assign from government agencies to respond to these spills. At the Ashland Oil spill in Pittsburgh, we were the responsible wildlife rehabilitation agency. They cleanup crews had environment suits to wear. The Fish and Wildlife people from the Pennsylvania Game Commission were out approaching beached birds from the water in minus 32 degree temperatures, wearing their normal outfits. They would have died if they had fallen in that water. I was out there, and it was bitter cold. They need to be able to have the money to stockpile that kind of equipment.

The Coast Guard certainly needs to have the money and some continuity. They cannot keep promoting people into the Captain of the Port of Philadelphia every four years. It is too much of a hardship on those poor captains to change jobs every couple of years.

Mr. CARPER. Good. Thank you, very much.

Mr. SAXTON. Just let me remark, Mr. Chairman. This is just a question. I was just noticing here in—I believe it is your testimony, your written testimony—that you received 123 birds in this spill, and three of them were dead when you got them. But out of the 120 live birds, 116 are still alive today?

Ms. FRINK. That is right.

Mr. SAXTON. That is a pretty high success.

Ms. FRINK. We are very good at what we do. We are still receiving oiled birds from this spill, and we work from 8:00 a.m. to three o'clock in the morning. The response is very similar to if six buses full of children went off a cliff. It is a very big emergency type—you have to work all the time, intense, short period of time.

Mr. FOGLIETTA. Thank you, very much, Ms. Frink, for being with us today.

That concludes our testimony for today. We will have a future hearing.

Again, I apologize to those panels which are not being heard today.

[Whereupon, at 12:30 p.m., the Subcommittee adjourned, subject to the call of the Chair.]

[The following was submitted for the record:]

TESTIMONY

The Honorable Michael N. Castle
Governor of Delaware

Subcommittee on Oversight and Investigations
Committee on Merchant Marine and Fisheries

Philadelphia, Pa.
July 17, 1989

Mr. Chairman, members of the subcommittee.

I am grateful for the opportunity to testify today on the oil spill which fouled our river just a few short weeks ago, threatening irreversible harm to fragile natural areas along the Delaware.

The incident reinforces my belief that the potential for environmental disaster in the Delaware Estuary is great, and that too few safeguards exist to prevent large-scale damage.

o Each year, roughly 400 million barrels -- 16 billion gallons -- of crude oil and petroleum products are transported on the Delaware.

Measured by volume of traffic, the Delaware River is the second busiest port in the nation.

o Although we have the ability to enforce certain basic navigation rules and control the piloting of vessels north of Cape Henlopen, the transport of petroleum products is largely unregulated and unpoliced.

o Our ability to respond quickly and appropriately, with adequate manpower and equipment and without unnecessary delay, is in doubt.

After the Presidente Rivera ran aground on early Saturday morning, there was a significant delay before a full contingent of clean-up personnel and equipment was on the river.

Thus a rookery on Pea Patch Island which we endeavor to protect from development and human intruders went unprotected from the spill until Delaware National Guard troops began cleaning up the oil by hand.

o Our ability to proceed against polluters is limited by international law, by admiralty law -- and by the simple fact that some shippers are little more than modern-day pirates.

A case in point: after a major spill on the Delaware in 1985, a foreign-owned vessel -- with its name painted out -- slipped out of port in the dead of night, effectively escaping any financial responsibility for the damage it caused.

o Industry must do more to prevent spills and more to clean them up quickly when they occur, and the federal government must provide laws which facilitate rather than hamper clean-up.

I think it's amazing that we must find our way through a Chinese puzzle of lawyers and insurance companies to get action when a spill occurs, and I reject the notion that federalization of a clean-up is the option of last resort.

In my view, it is the only solution.

o Finally, I believe it is incumbent on the states of the region to develop a regional response plan and pool resources so that we have the means to respond quickly when spills occur.

That cooperation already exists on an informal basis, as was evident last month.

The governors of the states of Pennsylvania, New Jersey and Maryland helped first and asked questions afterward, offering equipment and technical help as soon as the spill occurred.

But I believe it would be in the interest of our states to formalize the relationship, and for the federal government to formally recognize even loosely formed regional consortiums in cases like this one and give them both responsibilities and a voice in decisions.

* * *

The Delaware River spill was only one of three major incidents which occurred on the same weekend.

Coming at a time when the nation is still coming to grips with the environmental damage caused by the Exxon Valdez spill in Alaska, the June incidents made it clear that more needs to be done to prevent spills and protect against their consequences.

Certainly the members of this subcommittee are concerned, or you would not be here today.

Certainly the President is concerned.

That was demonstrated by the fact that Secretary Lujan and Administrator Reilly inspected the spill less than 24 hours after it occurred, and by the fact that Secretary Skinner and Admiral Yost came to Delaware when we were not satisfied with the results of the clean-up.

The White House staff took a serious and personal interest in this spill, which I think reflects President Bush's sensitivity to environmental issues.

Clean-up funding and resources

So what can we do to prevent future spills and make sure that our clean-up efforts are as effective as possible?

I would like to propose several steps that will increase our ability to prevent spills from happening -- but clean them up fast and effectively if they do occur.

Our first concern must be to make sure that the Coast Guard has the ability and the resources necessary to react to spills.

This responsibility has long rested with the Coast Guard, and the technical people I rely on tell me that during the 1970's the Coast Guard's Marine Environmental Protection Units set the standard for an aggressive and successful national strike force.

But budget constraints have hurt the effectiveness of these units, and I am concerned that we are approaching the 1990's ill-prepared to deal with oil spills.

I would fully fund the Coast Guard's needs in this area -- with one proviso: that the oil industry bear the cost of this effort.

I would expect an industry which has free use of our waterways to support a proposal to expand our environmental safeguards, and to spare us the horror of another Valdez.

Testimony -- 5

Federalization and coordination

I believe that good fortune alone saved us from serious environmental harm in the Delaware spill, and I believe that the environmental risk was heightened by the decision not to federalize the clean-up.

There is a clear need to establish a uniform, national policy of federalization, perhaps triggered when estimates of the size of the spill reach a certain level.

It is nonsensical to allow lawyers and agents for insurance companies -- whose first interest must be saving money for their clients -- to have any say in the size or speed of the clean-up effort.

At the same time, a clear-cut policy regarding on-site coordination must be established.

This is of paramount importance.

During the days of the cleanup of the Presidente Rivera spill, the temperature climbed above the 93-degree melting point of the Number 6 oil, making it imperative that as much oil be removed from the river as quickly as possible to prevent its melting on shore.

But, until halfway through the clean-up, operations were directed from Philadelphia. Decisions were being made thirty miles from the site of the spill, with inevitable delays that could have been extremely harmful.

We cannot direct an oil spill clean-up by remote control.

The decision to set up a mobile command post in Wilmington gave us a nerve-center literally within sight of the spill and allowed us to effectively connect headquarters, contractors, on-site clean-up crews and local and state agencies.

There is no substitute for on-the-scene coordination when changing circumstances require a change in response.

One other consideration supports this approach: Delaware does not enjoy the luxury of redundancy in any cabinet department, and we were hard-pressed to provide needed staffing when decisions were being made -- or at least discussed -- at three different locations during the early stages of the clean-up.

This argues for a unified, on-site command post.

One other passing comment on the subject of coordination: We experienced problems with communications among agencies, and there is a need for uniformity among agencies to facilitate communications in emergencies of this kind.

It may be that the Coast Guard would decide to have mobile equipment available at various key locations in the region.

Future planning

There are a number of planning steps which deserve consideration.

Foremost, perhaps, is the need for a much heavier deployment of equipment to be held in reserve for emergencies.

I am struck by the vast difference between the many systems in place to ensure safety in aviation, and the relative lack of safeguards in the area of oil transport.

While we measure the value of aviation safeguards in terms of lives, I am sure that if Governor Cowper of Alaska were here today he would tell you that we cannot treat environmental disasters any less seriously, and that more and better safeguards are needed.

This responsibility rests squarely with the various oil companies and shippers using our waters.

While I prefer a voluntary approach, I would not be opposed to federally mandated steps if the industry was reluctant to act on its own.

Specific contingency plans like those in place for the anchorage in the Delaware Bay should be in place for the upper Delaware River, and the equipment to implement them stockpiled.

Equipment should include skimmers, absorbent materials, booms with deep skirts, all located in strategically placed warehouses close to the water.

At each mouth of tidal streams there should be permanent anchor gear so that equipment can be deployed promptly.

In this spill, as in all the ones I know about, time has been of essence in preventing damage and minimizing cleanup costs.

In fact, some sort of national rapid deployment force equipped to handle the initial stages of any large spill until local units are in place may be needed.

The technology of oil spill clean-up is evolving, and we should approach the logistics of the job willing to explore new solutions.

The aviation analogy applies equally after a spill occur.

The same painstaking investigation and reconstruction that occurs after an aviation accident should be applied after large spills.

After each incident, the Coast Guard and the Army Corps of Engineers should review the cause of the incident and consider corrective action necessary to prevent a further incident.

For example, should the outcrop of rock in the Delaware River be removed to prevent another spill? When groundings occur, should consideration be given to dredging.

In our state's review of this incident, we decided that it would be valuable to include the Delaware River and Bay Pilots in our response team to reduce the opportunity for error in reporting a release or in containing the release and immobilizing the ship or allowing the ship to continue on its passage.

* * *

My testimony, necessarily, can touch only on major points concerning the spill.

For that reason, I have asked my Secretary of Natural Resources and Environmental Control to follow up with a detailed report on the spill and specific recommendations regarding future spills, and we look forward to participating in the federal assessment of recommendations for improved response to oil spills.

While I have emphasized areas where improvement is needed, I should add that we are grateful to the Coast Guard and its contractors as well as the owners' representatives for their work on the cleanup.

In the long run, successful implementation of an effective national policy regarding oil spills will depend on leadership in Washington, both from the White House and the members of this committee.

It is not a parochial concern.

It is not a regional concern.

Protecting our rivers and coastlines is just as important as protecting the great national parks and forests of the West from development and exploitation.

Tiny Pea Patch Island, with its isolated rookery frequented only by migrating shorebirds, is part of our natural heritage and must be protected.

Thank you.

TESTIMONY OF
LT. GOVERNOR MARK S. SINGEL

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT
AND INVESTIGATIONS

HOUSE COMMITTEE ON
MERCHANT MARINE AND FISHERIES

PHILADELPHIA, PENNSYLVANIA
JULY 17, 1989

TESTIMONY OF
LT. GOVERNOR MARK S. SINGEL
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

I AM HERE ON BEHALF OF GOVERNOR ROBERT CASEY TO DISCUSS WITH YOU A MOST SERIOUS CONCERN WHICH IMPACTS BOTH OUR ENVIRONMENT AND OUR EMERGENCY RESPONSE. OUR EXPERIENCES OF THE PAST TWO YEARS LEAD ME TO BELIEVE THAT WE CAN OFFER YOU A VERY WORTHWHILE ROADMAP FOR IMPROVING AMERICA'S OIL SPILL INCIDENT RESPONSE CAPABILITY.

OIL SPILLS ARE AGAIN BECOMING A MAJOR THREAT TO OUR ENVIRONMENT. AFTER SOME YEARS AWAY FROM THE SPOTLIGHT OF NATIONAL EVENING NEWS, THE SPILLS OF THE LAST TWO YEARS HAVE AGAIN RAISED OUR COLLECTIVE AMERICAN CONSCIENCE. MY CONSCIENCE IS TROUBLED WHEN I GO HOME TO THE NEWS, WEATHER, SPORTS AND SPILL OF THE DAY ON THE SIX-O'CLOCK NEWS.

IN RECENT TESTIMONY BEFORE THE HOUSE, THE COAST GUARD REPORTED THAT IT HAD RECORDED 6,700 OIL SPILLS DURING 1988, TEN OF WHICH INVOLVED AT LEAST 100,000 GALLONS. FURTHER, CLEAN-UP CREWS RECOVER, ON AVERAGE, NO MORE THAN 10% OF MAJOR OIL SPILLS, A PERFORMANCE THAT HAS FAILED TO IMPROVE DURING THE LAST 20 YEARS. THE GOVERNOR OF ALASKA STATED AFTER THE EXXON VALDEZ INCIDENT, THAT "IT IS CLEAR THAT THE INDUSTRY DOES NOT HAVE THE EQUIPMENT, EXPERTISE OR TECHNOLOGY TO MOUNT AN EFFECTIVE RESPONSE (TO A SPILL) WITHIN A CRITICALLY SHORT PERIOD OF TIME." AS THE

U.S. IMPORTS A GROWING SHARE OF THE OIL IT CONSUMES, BRINGING IT IN BY TANKERS, SPILLS WILL INEVITABLY BECOME A LARGER ENVIRONMENTAL THREAT.

I HAVE FIRST HAND EXPERIENCE IN THESE SPILL RESPONSE AND CLEAN-UP SITUATIONS. IN JANUARY 1988, AN ASHLAND OIL TANK ALONG THE MONONGAHELA IN PITTSBURGH SPLIT OPEN AND RELEASED FOUR MILLION GALLONS OF OIL, THE LARGEST INLAND WATERWAY SPILL IN U.S. HISTORY. NEARLY ONE MILLION ENDED UP POLLUTING THE RIVER. FOR TEN DAYS, THE WORLD'S ATTENTION WAS FOCUSED ON 25,000 HOMES WITH NO WATER; 250,000 PEOPLE ON MANDATORY WATER RESTRICTIONS WITH THEIR TAPS ABOUT TO RUN DRY AT ANY MOMENT; TEMPERATURES BELOW ZERO; ANIMALS AND FISH KILLED; AND A RIVER AND COMMUNITY FACING ANOTHER SETBACK ON THE ROAD TO RECOVERY.

WE ARE ALL JUSTIFIABLY ALARMED BY THE RECENT ACCIDENT INVOLVING THE EXXON VALDEZ IN PRINCE WILLIAM SOUND. HOWEVER, IN OUR RUSH TO RECOVER FROM A NORTH SLOPE INCIDENT, WE SHOULD NOT FORGET THAT AN ACCIDENT OF EQUAL MAGNITUDE IS ALWAYS A POSSIBILITY IN THE WATERS OF THE MID-ATLANTIC STATES. TANKERS CARRYING AN EQUALLY LARGE AMOUNT OF OIL ROUTINELY VISIT THE NAVIGABLE WATERS OF THESE STATES AND SHORELINE TERMINALS POSE A POTENTIAL PROBLEM OF EQUAL MAGNITUDE. OUR PORT, JUST OUTSIDE THIS BUILDING HAS ONE OF THE HIGHEST OIL TANKER MOVEMENT SCHEDULES IN THE U.S. TWO EAST COAST SPILLS WITHIN TWELVE HOURS JUST THREE WEEKS AGO DRAMATIZE MY POINT.

IT IS ALSO NOT WIDELY REALIZED THAT A VALDEZ-TYPE SPILL IN THE WATERS OF THESE STATES, THE CHESAPEAKE BAY FOR EXAMPLE, COULD CAUSE A SIGNIFICANTLY GREATER ENVIRONMENTAL PROBLEM THAN THE ALASKAN SPILL DUE TO A NUMBER OF IMPORTANT DIFFERENCES BETWEEN OUR ENVIRONMENT AND THAT OF PRINCE WILLIAM SOUND. OUR WATERS TYPICALLY HAVE SOFT BOTTOMS AS OPPOSED TO HARD BOTTOMS; OUR WATERS ARE SIGNIFICANTLY MORE SHALLOW; AND, PROBABLY MOST IMPORTANTLY, OUR WATERS ARE BOUNDED BY SANDY SHORES AND ENVIRONMENTALLY CRUCIAL WETLANDS AS OPPOSED TO ROCKY REEFS.

THE PITTSBURGH SPILL HAS RECEDED IN EVERYONE'S MEMORY BECAUSE WE HANDLED IT WELL. BUT, MR. CHAIRMAN AND MEMBERS, DON'T LOSE THE LESSON OF WHY THAT IS THE CASE AND OF THE COSTS INVOLVED. VOLUNTEER AND STATE AND LOCAL GOVERNMENT AGENCIES SPENT OVER TWO MILLION DOLLARS IN TWO WEEKS ON RESPONSE COSTS ALONE. OUR STATE EMERGENCY OPERATIONS CENTER WORKED 14 DAYS, 24 HOURS A DAY, TO COPE WITH THE INCIDENT. A DOZEN STATE AGENCIES AND SIXTY LOCAL GROUPS WERE INVOLVED. BUT THAT SUCCESSFUL RESPONSE STORY THAT I SAW UNFOLD IN MY FIVE DAYS IN THE OPERATIONS CENTER WAS A DIFFICULT, CHALLENGING COPING EXPERIENCE FOR ALL INVOLVED. THE ENVIRONMENTAL COST IS BOTH LONG TERM AND INCALCULABLE.

PENNSYLVANIA HAS DEVELOPED AND IMPLEMENTED AN EMERGENCY RESPONSE PROGRAM TO RESPOND TO SPILLS OF PETROLEUM PRODUCTS AND HAZARDOUS MATERIALS WITHIN THE COMMONWEALTH. WE BELIEVE OUR CURRENT STATE OF READINESS WOULD ALLOW US TO RESPOND EFFECTIVELY TO ANY LAND BASED SPILLS AS WELL AS SPILLS INTO OUR SMALLER

NON-NAVIGABLE STREAMS. HOWEVER, THE EVENTS AT ASHLAND AND MOST RECENTLY IN THE DELAWARE HAVE DRIVEN HOME THE EXTENT TO WHICH THE STATE HAS PLACED THE RESPONSIBILITY FOR THE PROTECTION OF OUR OWN NATURAL RESOURCES IN THE HANDS OF THE FEDERAL GOVERNMENT. WHILE WE BELIEVE THERE IS A VERY APPROPRIATE MECHANISM FOR SPILL RESPONSE BY THE FEDERAL GOVERNMENT UNDER THE NATIONAL CONTINGENCY PLAN, AND WHILE THE REGIONAL RESPONSE TEAMS PROVIDE FOR STATE INVOLVEMENT IN THE RESPONSE, OUR RECENT EXPERIENCES WITH MAJOR SPILLS HAVE CAUSED US TO QUESTION THE AMOUNT OF RESOURCES BEING MADE AVAILABLE BY THE CONGRESS TO THE FEDERAL AND STATE GOVERNMENT AGENCIES AND THE MECHANISM BY WHICH THESE RESOURCES ARE MADE AVAILABLE TO THE RESPONSE.

ON JUNE 24, 1989, THE TANKER PRESIDENTE RIVERA RAN AGROUND OFF OF MARCUS HOOK IN THE DELAWARE RIVER. THE TANKER RUPTURED AND RELEASED ABOUT 300,000 GALLONS OF #6 OIL. BECAUSE THE RESPONSE WAS MOSTLY IN DELAWARE, OUR STATE AGENCY COSTS WERE LOW. THE CURRENT ESTIMATES FOR RESPONSE COSTS ARE UNDER $50,000 AND, AS OF JULY 10, APPROXIMATELY 70% OF THE OIL HAD BEEN RECOVERED. THIS IS A MUCH HIGHER FIGURE FOR RECOVERY THAN NORMAL BUT A DIFFERENT TYPE OF OIL AS WELL.

DURING THE RESPONSE AND RECOVERY FROM THE DELAWARE RIVER ACCIDENT, SEVERAL PROBLEMS WERE ENCOUNTERED. THE COAST GUARD WAS THE LEAD FEDERAL AGENCY. IN PITTSBURGH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) HAD THE LEAD. THE COAST GUARD WAS NOT FULLY PREPARED FOR THIS INCIDENT. THESE RECOMMENDATIONS ARE DIRECTED AT THE SYSTEM, NOT THE AGENCY. BUT

WE FEEL STRONGLY THAT IMMEDIATE IMPROVEMENTS ARE INDICATED, AND WE RECOMMEND THE FOLLOWING:

PREPAREDNESS RECOMMENDATIONS

- THE COAST GUARD DEVELOP, REVIEW AND EXERCISE A PORT SPILL RESPONSE PLAN BIENNIALLY WITH ALL APPROPRIATE FEDERAL AND AFFECTED STATE AND LOCAL GOVERNMENT ELECTED OFFICIALS, DEPARTMENTS AND AGENCIES.

- THE PRIME CLEAN-UP CONTRACTOR SHOULD BE SELECTED BY THE COAST GUARD FROM AN APPROVED COAST GUARD PORT OF INCIDENT LISTING, NOT BY SPILLER.

- DURING THE INCIDENT RESPONSE AND RECOVERY PERIOD, ALL FEDERAL GOVERNMENT PERSONNEL AND RESOURCES SHOULD BE AVAILABLE TO THE LEAD FEDERAL AGENCY TO MONITOR AND ADDRESS THE CLEAN-UP AND RELATED RESPONSE EFFORTS EFFECTIVELY. THIS WILL INCLUDE ALL FEDERAL PERSONNEL AND EQUIPMENT, AS APPROPRIATE, ON AN INTER- AND INTRA-DEPARTMENTAL LEVEL.

EXAMPLE: IN THE PRESIDENTE RIVERA SPILL, THE COAST GUARD DID NOT GET THE HELICOPTER SUPPORT IT REQUESTED VIA THE SPILLER. THE COAST GUARD NEVER ASKED NEARBY MILITARY INSTALLATIONS (ARMY - AIR FORCE) FOR SUPPORT. ALL FEDERAL RESOURCES SHOULD BE AVAILABLE. THIS IS A FLAW IN THE NATIONAL CONTINGENCY PLAN. EITHER GIVE THE COAST GUARD ACCESS TO THE INTER-AGENCY RESOURCES OR GIVE THEM

MORE IN-HOUSE RESOURCES. OBVIOUSLY THE FORMER IS MORE COST EFFECTIVE TO THE TAXPAYER.

- ONE OF THE REASONS FOR INTER-AGENCY NON-ACTION MAY BE THAT THE COAST GUARD DID A POOR JOB OF KEEPING OTHER RRT MEMBERS OPERATIONALLY INFORMED. FEMA AND DOD, AMONG OTHERS, WERE CONSPICUOUSLY ABSENT.

- THE COAST GUARD CAPTAIN OF THE PORT SHOULD IDENTIFY ALL SPILL RESPONSE AND RECOVERY RESOURCES REQUIREMENTS TO THE PRIME CONTRACTOR WHO WILL EITHER SUPPLY THESE REQUIREMENTS OR FUND THEIR ACQUISITION.

EXAMPLE: IN THE DELAWARE SPILL THE CAPTAIN HAD TO "NEGOTIATE" RATHER THAN "DIRECT". THIS SLOWED RESPONSE ACTIVITIES FOR 48 HOURS. FINALLY, THE STATE OF DELAWARE STEPPED IN WITH THE NATIONAL GUARD. THIS WAS NOT ONLY UNFAIR TO GUARDSMEN AND WOMEN, BUT SHOULD HAVE BEEN UNNECESSARY.

- THE NATIONAL RESPONSE TEAM (NRT) SHOULD DEVELOP AND IMPLEMENT A FEDERAL POLICY FOR FEDERAL AGENCY COST RECOVERY OF ALL INCIDENT-RELATED EXTRAORDINARY EXPENSES FROM THE RESPONSIBLE PARTY. THIS IS A "NEW ANGLE" TO CONSIDER AS AN INCENTIVE TO THE CURRENT PROCESS FOR "FEDERALIZATION" OF SPILLS, RATHER THAN THE RELUCTANCE WE ALWAYS SEE BY EPA AND COAST GUARD. CURRENTLY, AGENCIES ARE SWAYED AND DELAYED IN IMMEDIATE RESPONSE DECISIONS BY FEDERAL OFFICE OF MANAGEMENT AND BUDGET SANCTIONS AND THE FEDERAL ANTI-DEFICIENCY ACT FOR FEDERAL AGENCY DIRECTORS. THIS

INCIDENT COST WILL INCLUDE ALL PERSONNEL COSTS, EQUIPMENT USAGE AND SUPPORT COSTS, AND REQUIRED ACQUISITIONS. FEDERAL AGENCIES WERE RELUCTANT TO COMMIT TO THIS THIRD, AND LAST OIL SPILL OF THE 24 HOUR PERIOD BECAUSE OF CURRENT PROCEDURES.

- THE 311K FUND WHICH THE COAST GUARD AND EPA USE IN THE EVENT OF A "FEDERALIZED" SPILL HAS NOT BEEN A VIABLE ALTERNATIVE BECAUSE OF LOW LEVELS OF FUNDING. PENNSYLVANIA POINTED THIS OUT IN CONGRESSIONAL TESTIMONY BY THE STATE DEPARTMENT OF ENVIRONMENTAL RESOURCES AFTER THE ASHLAND SPILL. 311K SHOULD BE REVAMPED OR DROPPED. THE COAST GUARD SHOULD BE EMPOWERED, IN RESPONSE TO AN INCIDENT, TO EXPEDITE THE HIRING, PURCHASING, LEASING, AND CONTRACTING FOR PERSONNEL AND RESOURCES NECESSARY TO MITIGATE THE INCIDENT AND ENSURE EFFECTIVE RESPONSE TO AND RECOVERY FROM THE INCIDENT.

EXAMPLE: IT WAS CLEAR DURING THE DELAWARE SPILL THAT THE USCG WAS HINDERED FROM TAKING DIRECT ACTION BECAUSE THEY HAD NO EMERGENCY FUNDS OR EMERGENCY PURCHASING AUTHORITY. THIS HINDERED THE FIRST 72 HOURS OF RESPONSE AS THE COAST GUARD "NEGOTIATED" BETWEEN THE INSURER, THE CONTRACTORS, AND THE GOVERNMENT AGENCIES REQUIRING SUPPORT. USCG PURCHASING AND CONTRACTING RULES ARE TOO INFLEXIBLE AND SHOULD BE UPDATED TO ACCOMMODATE THE COASTAL PROTECTION MISSION. IT APPEARED TO OUR STATE AGENCIES THAT THE PORT CAPTAIN HAD NEITHER THE FUNDS NOR THE AUTHORITY FOR "EMERGENCY PURCHASES". BECAUSE OF OUR ASHLAND EXPERIENCE, OUR STATE EMERGENCY MANAGEMENT AGENCY DIRECTOR MET WITH THE INSURED'S

REPRESENTATIVE. SHORTLY THEREAFTER, AND CONCERNED ABOUT CLEANUP DELAYS, THE COAST GUARD DID THE SAME.

- THE COAST GUARD HAS HAD NUMEROUS MISSIONS ADDED TO ITS AGENDA (SUCH AS DRUG ENFORCEMENT), BUT HAS LOST STAFF AND EQUIPMENT BY CONGRESSIONAL BUDGET CUTS. THE CONGRESS SHOWS CONCERN TO THE PUBLIC BUT DOESN'T SHOW POLICY OR BUDGETARY SUPPORT BY VOTE. I LAY THIS AT YOUR DOORSTEP. THE CONGRESS IS THE LAST STEP IN THE FEDERAL BUDGETING PROCESS.

- REOPEN THE EPA AND COAST GUARD OIL SPILL RESEARCH CENTER, WHICH WERE CLOSED TWO AND THREE BUDGET YEARS AGO RESPECTIVELY. OPEN A JOINT RESEARCH VENTURE WITH THE AMERICAN PETROLEUM INSTITUTE AS PART OF THEIR RECENTLY PROPOSED PETROLEUM INSTITUTE RESPONSE ORGANIZATION (PIRO). (THE PIRO IS DISCUSSED IN MORE DETAIL IN ENCLOSURE.)

- THE COAST GUARD STAFF WAS ILL PREPARED TO WORK WITH THE STATES IN THE PRESIDENTE RIVERA INCIDENT. THE COAST GUARD FACILITY WAS NOT PREPARED FOR EXTERNAL AGENCY USAGE. THERE WAS NO EMERGENCY OPERATIONS CENTER (EOC) CONCEPT IN PLACE. USCG PERSONNEL HAD NO UNIFORMLY PRE-ASSIGNED FUNCTIONS FOR THE FIRST 48 HOURS OF THE OPERATION.

EXAMPLE: IT WASN'T UNTIL THE PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY STAFF SUGGESTED SOMETHING AS SIMPLE AS PLACING A PHONE LISTING OF STATE AGENCIES AT THE MAIN SWITCHBOARD TO HELP ROUTE PHONE CALLS ON SUNDAY EVENING THAT THIS WAS DONE. MANY CALLERS

WERE PASSED TO THREE AND FOUR LOCATIONS BEFORE CONTACTING THE REQUIRED PARTY FOR THE FIRST TWO DAYS. COAST GUARD OPERATIONS STAFF DID NOT BRIEF STATES, A COMPLAINT SHARED BY BOTH NEW JERSEY AND PENNSYLVANIA; OPERATIONS INFORMATION HAD TO BE SOUGHT ON A ONE-TO-ONE BASIS OR INFERRED DURING THE TECHNICAL/ENVIRONMENTAL STAFF MEETINGS. AT REPORTED ESCALATION OF THE INCIDENT FROM 175,000 GALLONS TO 1.6 MILLION GALLONS, NO SENIOR LEVEL STATE CONTACT WAS MADE NO OPERATIONS IMPACT ASSESSMENT - NO POLITICAL/PUBLIC POLICY CONSIDERATION WAS GIVEN TO GOVERNORS, EVEN AFTER REPEATED CALLS TO THE PORT CAPTAIN FROM SENIOR STATE OFFICIALS.

UNLESS THE U.S. DEVELOPS NEW SOURCES OF OIL AND REDUCES ITS DEPENDENCE ON FOREIGN TANKERS IN OUR HARBORS, THE NUMBER OF TANKERS ENTERING OUR PORTS WILL INCREASE. LAST YEAR FOREIGN PRODUCERS PROVIDED THE U.S. WITH 37% OF ITS OIL SUPPLIES, UP FROM 27% IN 1985. ACCORDING TO THE HOUSE ECONOMIC STABILIZATION COMMITTEE, BY THE END OF 1990, AS MUCH AS 90% OF THE OIL CONSUMED BY THE U.S. COULD ARRIVE BY TANKER, UP FROM 65% NOW.

THEREFORE, WE MUST TAKE ALL AVAILABLE ACTIONS TO IMPROVE OUR COMPREHENSIVE CAPABILITY TO MITIGATE, PREPARE FOR, RESPOND TO AND RECOVER FROM POSSIBLE OIL SPILLS IN OUR WATERS.

THE NEXT TOPICAL AREA IN MY TESTIMONY IS A LIST OF ISSUES, PROBLEMS AND RECOMMENDATIONS PROVIDED FOR THE COMMITTEE'S REVIEW AND CONSIDERATION FROM AN ENVIRONMENTAL PERSPECTIVE. I HAVE PROVIDED THIS AS ENCLOSURE ONE. THESE ISSUES AND

RECOMMENDATIONS APPLY TO OTHER HAZARDOUS MATERIALS SPILLS AS WELL AS THIS ONE.

MR. CHAIRMAN AND MEMBERS, THE LIST OF RECOMMENDATIONS IS LENGTHY AND DETAILED. I HOPE THIS POINTS OUT THE TWO UNIFYING COMPONENTS OF THE POLICY AND BUDGET ISSUES INVOLVED - (1) THAT THE SITUATION IS LONG OVERDUE FOR ACTION BY THE CONGRESS, AND (2) THAT THE PROBLEM IS SERIOUS, ALMOST UNMANAGEABLE, AND GROWING WORSE. GOVERNOR CASEY AND I WANTED TO PROVIDE YOU THESE ISSUES AND RECOMMENDATIONS SO THAT YOU CAN "MOVE WITH ALL DUE AND PRUDENT HASTE" AS YOU DEVELOP AND PASS LEGISLATION IN THIS AREA. WE HOPE YOU WILL CONSIDER THESE ISSUES AND RECOMMENDATIONS

ENCLOSURES 2

ENCLOSURE ONE TO TESTIMONY OF
LIEUTENANT GOVERNOR MARK S. SINGEL
CONCERNING SPILL PREVENTION AND RESPONSE READINESS

REGIONAL RESPONSE TEAM

Background:

The National Contingency Plan (NCP) outlines requirements for a National Response Team (NRT) and Regional Response Teams (RRT) to provide for the needed planning and coordination of emergency response to incidents involving the release of oil or hazardous materials. The NRT includes standing representatives from 14 Federal agencies and is responsible at the national level for coordinating Federal planning and response actions. This coordination includes the development of national guidance and preparedness and the provision of resources during major emergencies.

The Region III Regional Response Team includes standing representatives from 11 Federal agencies and Delaware, District of Columbia, Maryland, Virginia, and West Virginia. The RRT is co-chaired by EPA Region III and the U.S. Coast Guard - Fifth District. The RRT's main function is to prepare itself for emergency incidents and to provide advice and support to the designated On-Scene Coordinator (OSC) when an emergency response is warranted. Each RRT is required under the NCP to develop a Regional Contingency Plan (RCP). RRT III has developed an RCP (updated 11/88) which identifies responsibilities and the support functions which the various agencies can offer the OSC during a response. The RCP also requires an activation of RRT III in the event of a major spill to facilitate providing immediate support to the OSC. Each Coast Guard Marine Safety Office (MSO) also has developed in accordance with the NCP and consistent with the RCP, a local contingency plan for their area of jurisdiction. These plans identify probable locations for spills, the volume and source of available resources and a local organizational structure for responding.

Problems:

1. The RRT mechanism, as we see it today, has developed a technical impact, environmental assessment, regulatory enforcement posture. It is not operations oriented by virtue of its limited membership. The RRT is becoming aware of this problem and is interested in making some changes.

2. Even though the Regional Contingency Plan calls for activation of the RRT during a major spill, it is our impression that EPA and the US Coast Guard are reluctant to activate due to a fear of losing control to the states. Although any state representative can request an activation,

states have been reluctant to do this without strong EPA or Coast Guard support to deal with pillars.

In the Ashland case, Pennsylvania discussed the need with EPA and the Federal Emergency Management Agency (FEMA) for "federalization" or a presidential disaster/emergency declaration. Neither was offered. Finally, our state emergency management agency and EPA agreed that EPA would develop a consent decree on Ashland.

Damage assessment for the Ashland spill (economic and response, not environmental) was developed by our state emergency management agency as a pioneering effort for technological emergencies. Alaska officials and insurance representatives consulted, at length, with our emergency management agency staff about cost recovery for use in the Valdez spill.

Recommendations:

1. The RRT's be expanded by order of the NRT chairs to include two representatives per state, one technical and one for operations coordination.

2. The RRT be invited to address a meeting of the appropriate state officials to discuss the roles and capabilities of the RRT and that appropriate action be taken within the respective states to formalize their own response mechanisms in accordance with the RRT framework.

3. The RRT be activated in the event of a major spill or a lesser spill that affects more than one state.

FEDERALIZATION OF A RESPONSE

Background:

The National Contingency Plan states that:

> The OSC, in consultation with legal authorities when appropriate, shall make a reasonable effort to have the discharger voluntarily and promptly perform removal actions. The OSC shall ensure adequate surveillance over whatever actions are initiated. If effective removal actions are not being taken to eliminate the threat, or if removal is not being properly done, the OSC shall, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not take proper removal actions, or is unknown, or is otherwise unavailable, the OSC shall, pursuant to section 311 (c)(1) of the CWA, determine whether authority for a Federal response exists and, if so, take appropriate response actions. Where practicable, continuing efforts should be made to encourage response by responsible parties."

Problems:

1. The major problem with the NCP is that the process to encourage a responsible party clean-up is too cumbersome to get the clean-up going while the oil is flowing. Spills have a bad habit of occurring when corporate officials who have the authority to expend funds are not in their offices. At Ashland, it was twelve hours before booms were in the river. Delays were also evident in the recent Delaware spill.

2. In addition to the cumbersome language of the NCP, there is a real problem with Federal resources for an oil spill. At the time of Ashland, the 311(k) Fund, which is the Clean Water Act response fund, had about four million dollars in it. The Clean Water Act requires that when this fund drops below 10 million dollars, an appropriation will be made to the fund but, this has not happened in recent years.

Recommendations:

1. The Committee support the revision of the National Contingency Plan to require immediate Federal response and intervention following a major spill and the turning-over of the response activities to the responsible party only after a response plan has been approved by the Federal OSC and the Regional Response Team representatives of the affected States.

2. The Committee support the provisions of the Clean Water Act and ask the President to request the allocation required by the Legislation. The Committee also support legislation to ensure that this transfer of funds occurs in the future as required by the Clean Water Act.

PREVENTION

Background:

The Clean Water Act provides for prevention of oil spills from shore facilities under the Spill Prevention Control and Countermeasures program (SPCC), which is administered by EPA. The Coast Guard is responsible for marine safety programs which serve as the preventative aspect of the water transportation of these materials.

Problem:

1. Recent events involving Ashland, the Exxon Valdez, and the Presidente Rivera in the Delaware Bay have caused us to question the effectiveness of the current preventative measures. Although no preventative measures are ever foolproof, the number of major incidents in recent weeks indicate that improvements are required.

Recommendations:

1. The SPCC regulations be revised to require that above ground storage tanks be constructed and maintained in accordance with acceptable standards, that facilities be required to plan for spills beyond their boundaries, and that storm water drainage systems are designed with controls to prevent the discharge of contaminants.

2. The Coast Guard conduct a review of all aspects of marine traffic safety, including vessel construction, inspections, captain/crew licensing, pilot requirements, and the need for enhanced navigational aids.

3. The Petroleum Incident Response Organization (PIRO) recommendations be given full consideration related to the items in #2 above.

RESOURCES

Background:

During the Ashland spill, resources to respond to the incident were in short supply. Booms were flown in from Mobile, Alabama. At one point it was estimated that every major piece of response equipment east of the Mississippi was pulled into the Pittsburgh area. The Alaskan spill presented problems an order of magnitude larger in a much more remote area. Although some oil spill equipment is provided by the US Coast Guard, a large portion belongs to private concerns. Consequently, the amount of equipment available is in a large part limited by the commercial feasibility of maintaining it. Furthermore, the technology to respond to light oil spills in fast moving water was inadequate.

Problem:

1. Available spill response equipment has proven inadequate to address the major spills we have witnessed in the past years. Furthermore the location of the existing equipment is not tracked in any fashion which allows quick access.

2. EPA's and USCG spill response research programs were eliminated because of budgetary considerations.

Recommendations:

1. The NRT, working through National Response Center and state emergency management agencies, establish a data base of all existing spill response equipment.

2. The federal government join in the PIRO concept and reinstitute a research program to improve oil spill response. This program should address inland as well as coastal spills, fresh water as well as sea water, swift moving water as well as calm water, light oils as well as heavy oils, and the impact of air and water temperature on spill behavior. The research should include areas such as boom design, dikes and other containment measures, and dispersants and other chemical additives. The joint nature of the program will serve to make permanent the program rather than leave it subject to agency budget cuts.

3. The US Coast Guard, as part of their local contingency planning responsibilities under the NCP, conduct worst case scenario planning to identify the total resource needs of our various port areas to identify potential shortfalls.

PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO)

Background:

On June 20, 1989, The American Petroleum Industry (API) formally announced the creation of the Petroleum Industry Response Organization, an industry sponsored program for the prevention, containment, and cleanup of major oil spills. The PIRO task force, under the chairmanship of Allen E. Murray, CEO of Mobil Corp., found: "The industry has neither the equipment nor the response personnel in place and ready to deal with catastrophic tanker spills." In response to the recognized problem, the industry plans to form five regional response centers - two on the Atlantic, one on the Gulf of Mexico, and two on the Pacific. Each center would be equipped to respond to a spill of up to eight and one-half million gallons.

Problem:

1. While this action on the part of the oil industry is highly encouraged, the existing problem is not mitigated until these centers are operational and proven effective. Furthermore, since the time to respond is so critical in these situations, the location of the centers becomes of the utmost importance. The current PIRO plan calls for a New York Tristate Center, which could be as far north as Portland, Maine or as far south as Cape May, NJ, and a Norfolk, VA center, which could be as far south as Tampa, FL.

Recommendations:

1. The efforts of the API in establishing PIRO be encouraged by the individual states in order to get the system in place as rapidly as possible.

2. The selection of the locations of the centers be established primarily on the criterion of maximizing natural resource protection and locations of greatest incident potential.

3. The PIRO locations develop a formal linkage to the strike team locations. The PIRO teams support the Coast Guard strike teams.

US COAST GUARD NATIONAL STRIKE FORCE

Background:

The preeminent expertise in the country in responding to major spills of petroleum products and hazardous materials in navigable waters is the Coast Guard Strike Force. Originally there were three Strike Teams in the country, one for the Atlantic (based in Elizabeth City, NC), one for the Pacific, and one for the Gulf of Mexico. Within the last few years, as a cost saving measure, the Atlantic and the Gulf Teams were merged into LANTAREA (Atlantic Area Strike Team) and based in Mobile, Alabama.

Problem:

1. As mentioned before, time is of the essence in mounting an effective response to a spill. The time required to get a Strike Team on-scene for the Mid-Atlantic States is substantially longer than it was when the Atlantic Strike Team was in existence. This invariably results in greater environmental damage.

Recommendations:

1. The Atlantic Strike Team be reinstituted to provide a more rapid response to major spills along the Atlantic seaboard.

2. The PIRO districts, through memoranda of understanding with the NRT, align relationships for support and coordination with strike team locations. That frequent meetings of strike teams and PIRO districts serving RRT's be conducted. That the above parties exercise at various locations, under wide ranging scenarios, on a biennial basis.

FEDERAL WATER POLLUTION CONTROL ACT (CLEAN WATER ACT)

Background:

The objective of the Clean Water Act is the restoration of the quality of the Nation's waters by eliminating the discharge of pollutants. The Act prohibits the discharge of oil, oil products, or hazardous substances into the waters of the US.

Problem:

1. The maximum civil penalty which can be assessed under the Clean Water Act for discharge of oil into the waters of the US is $5000. Five thousand dollars is also the maximum penalty for violation of pollution prevention regulations. These penalties are simply not realistic in terms of the environmental consequences of major oil spills. They are almost insignificant when compared to the costs of operation of a large tanker and could be construed as little more than a license to pollute.

Recommendations:

1. Congress amend the Clean Water Act to establish penalties which will be at least as strict as SARA Title III and/or at least enough to encourage stronger pollution prevention measures by the industry and which will more accurately reflect the severity of the offense.

INTERNATIONAL OIL SPILL PROTOCOLS

Background:

The international complexity of petroleum commerce calls into question the ability of the US judicial system to deal effectively with catastrophic spills in which it may not always have clear jurisdiction. Furthermore, existing legislation does not afford all spill victims fully adequate remedies. Under the Clean Water Act, for example, a large 50,000 ton tanker has a liability limit of only $7.5 million, and third party damages are not covered. In the event of the failure of the responsible party to perform the cleanup, the only recourse would be the 311 (k) fund which as mentioned above is quite small and cannot be used for natural resource damage or economic damages. The Oil Spill Protocols, by contrast, establish strict liability backed by compulsory insurance, which is backed by an international fund financed by oil receivers. The same 50,000 ton tanker would have a liability of $30 million under the Oil Spill Protocols. The total compensation available from the Protocols was $260 million near the end of 1988. The most catastrophic spill prior to the Exxon Valdez, was the Amoco Cadiz, which resulted in a judgement of $85 million, of which nearly one-half represented interest accrued during the proceedings. One of the major benefits of the adoption of the Protocols would be the speed and certainty of settlement. The fund has established a record where some cases have been settled and paid within months of receiving final documentation. Even the most complex cases have been settled long before similar cases in the US judicial system.

Note that without some modification state/local government will be at the mercy of the foreign owners/shippers. If the "evidence", the ship, leaves U.S. waters, we may never recoup expended funds. Enclosure Two is a letter to the Captain of the Port, Philadelphia, from Pennsylvania, asking notification upon release of the vessel. We did this with the encouragement of Delaware so that some strings could be attached for cost recovery.

Recommendation:

1. The United States support the International Oil Spill Protocols.

FEDERAL OIL SPILL LIABILITY LEGISLATION

Background:

Existing Federal laws which deal with oil spills contain liability limits which are not sufficient to address the environmental damages caused by these spills. The Federal Government has struggled with comprehensive oil spill legislation for over fifteen years but has not been able to arrive at a solution largely due to the question of preemption of state laws. There are currently three bills which address this issue, H.R. 1465, S.B. 686 (Sen. Mitchell's bill), and an administration bill. H.R. 1465 calls for ratification of the Oil Spill Protocols but preempts state liability laws and state oil spill funds and in fact prohibits state law and state spill funds from dealing with cleanup and damages. Mitchell's bill preserves state liability laws and spill funds but does not ratify the oil spill protocols since Sen. Mitchell views these agreements as being too weak. Both of these bills also provide for a $500 million federal fund financed by a 1.3 cent per barrel oil tax which would be used in the event of a spill which exceeded the liabilities of the spiller. The administration has recently recommended that the international agreements be ratified, that state funds not be preempted, and that state liability laws be preempted only to the extent necessary to implement the international agreements. While in principle it is difficult to agree to preemption of the states' liability laws, the practical considerations of quick and certain recovery against spills from tankers, settlement without litigation, access to the international oil spill fund as well as the domestic fund, and the general consensus that spills would not exceed the combined liabilities of the various funds, argue for acceptance of this provision.

Recommendations:

1. The Federal Government should actively pursue oil spill liability legislation that:
    a. Provides for a domestic oil spill fund,
    b. Ratifies the international oil spill protocols,
    c. Preserves the states' rights to maintain oil spill funds, and
    d. Preserves the states' rights to liability laws to the extent that they do not conflict with the oil spill protocols.

ENCLOSURE TWO

COMMONWEALTH OF PENNSYLVANIA
OFFICE OF GENERAL COUNSEL
HARRISBURG

MOREY M. MYERS
GENERAL COUNSEL

July 7, 1989

Captain Lawrence Murdock
Commanding Officer
United States Coast Guard Marine
Safety Office
One Washington Avenue
Philadelphia, Pennsylvania 19147-4395

Dear Captain Murdock:

On June 24, 1989, at 4:46 a.m., the Uraguayan-registered oil tanker Presidente Rivera was punctured after hitting a reef in the Delaware River. It is reported that 306,000 gallons of #6 oil was released. Some of this oil damaged Pennsylvania shoreline and waters. The ship is currently docked at the Sun Oil Refinery, Marcus Hook, Pennsylvania. We are informed by your staff that you have the authority to approve movements of the ship within the port.

The ship and its crew may be important to Pennsylvania for purposes of review of evidence relative to immediate pollution impact and long-term environmental effects. I am informed that, in a conversation between United States Coast Guard (USCG) Lt. Commander Robert O. Smith of Philadelphia Port Operations and Joseph L. LaFleur, Director of the Pennsylvania Emergency Management Agency, it was indicated by Mr. LaFleur that Pennsylvania requested notice from the Coast Guard prior to release of the ship from the harbor. It was suggested that such a request be placed in writing by Pennsylvania.

This letter is confirmation of such request on behalf of the Commonwealth that the Captain of the Port USCG Marine Safety Office (MSO) Philadelphia provide 72 hours' notice to the Governor of a potential release. It may be necessary for us to request that you detain the ship and crew, pending satisfactory development of cost reimbursement, legal considerations and pollution impact studies. Thank you for this notification and consideration.

Sincerely yours,

Morey M. Myers
General Counsel

MMM:ncf

cc: Joseph L. LaFleur

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD

STATEMENT OF REAR ADMIRAL PAUL WELLING,
COMMANDER, FIFTH COAST GUARD DISTRICT

COMMITTEE ON MERCHANT MARINE AND FISHERIES
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATION,
UNITED STATES HOUSE OF REPRESENTATIVES
PHILADELPHIA, PA
17 JULY 1989

THANK YOU VERY MUCH AND GOOD MORNING, MR. CHAIRMAN.

LAST YEAR, THE COAST GUARD RESPONDED TO ABOUT 7,500 OIL SPILLS IN THE COASTAL AND MARITIME REGIONS OF THE UNITED STATES. APPROXIMATELY 1,040 OF THOSE CASES OCCURRED IN THE FIFTH COAST GUARD DISTRICT. THE FIFTH DISTRICT HAS RESPONDED IN RECENT YEARS TO A NUMBER OF SIGNIFICANT SPILLS: THE APRIL OF 1988 MEDIUM SPILL IN BALTIMORE HARBOR, WHICH RESULTED FROM A SHORESIDE FIRE, THE 212,000 GALLON SPILL IN CHESAPEAKE BAY IN AUGUST 1988 FROM THE TANK BARGE 565, THE MOTOR VESSEL CENTAURUS FIRE, IN WILMINGTON THIS FEBRUARY. IN ADDITION, WE HAVE ACTIVATED THE REGIONAL RESPONSE TEAMS IN RESPONSE TO POTENTIAL SPILLS OVER 20 TIMES IN THE PAST TWO YEARS AND CONDUCTED OVER 40 FEDERALLY FUNDED OIL REMOVALS DURING THE SAME PERIOD.

BEFORE ADDRESSING THE SPECIFIC ISSUE OF CONTINGENCY PLANNING, LET ME MENTION SEVERAL COAST GUARD EFFORTS TO

INCREASE SHIPPING SAFETY. OVER THE YEARS AND THROUGH THE COAST GUARD'S ACTIVE PARTICIPATION AT THE INTERNATIONAL MARITIME ORGANIZATION, WE HAVE SUBSTANTIALLY RAISED THE LEVEL OF VESSEL DESIGN, CONSTRUCTION AND MAINTENANCE. ADDITIONALLY, WE HAVE LED THE WAY IN IMPROVING THE QUALIFICATION, NOT ONLY OF OUR OWN MERCHANT MARINERS, BUT ALSO THOSE OF THE FOREIGN FLAG VESSELS CALLING ON U. S. PORTS. THE WORLD TANKER FLEET HAS ADOPTED THE PROCEDURES PROVIDED IN THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, REFERRED TO FREQUENTLY AS MARPOL, AND SUBSTANTIALLY REDUCED OPERATIONAL DISCHARGES FROM TANK CLEANING AND REDUCED THE THREAT OF POLLUTION DURING ACCIDENTS SUCH AS GROUNDINGS AND COLLISIONS. THE COAST GUARD WILL CONTINUE ITS EFFORTS TO IMPROVE PREVENTION MEASURES.

NOW I WOULD LIKE TO ADDRESS THE ISSUE OF CONTINGENCY PLANNING AND THE NATIONAL SYSTEM THAT IS IN EFFECT FOR RESPONDING TO OIL AND HAZARDOUS MATERIAL SPILLS AND THE APPROPRIATE REGULATIONS GOVERNING BOTH TERMINALS AND VESSELS.

IN 1972, THE UNITED STATES DEVELOPED A NATIONAL OIL AND HAZARDOUS SUBSTANCE SPILL RESPONSE SYSTEM, BASED ON STATUTE AND REGULATION, WHICH RELIES ON THE MAINTENANCE OF COMPREHENSIVE CONTINGENCY PLANS, AND FUNCTIONS THROUGH AN EFFECTIVE NETWORK OF INTERAGENCY RELATIONSHIPS. THIS FEDERAL SYSTEM IS DESCRIBED IN REGULATION IN THE NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN.

IT ESTABLISHES THREE ORGANIZATIONAL LEVELS, THE NATIONAL RESPONSE TEAM, REGIONAL RESPONSE TEAMS, AND ON SCENE COORDINATORS. THE NATIONAL RESPONSE TEAM, CONSISTING OF 14 FEDERAL AGENCIES, IS PRIMARILY A NATIONAL PLANNING, POLICY AND COORDINATING BODY. THERE ARE 13 REGIONAL RESPONSE TEAMS THROUGHOUT THE UNITED STATES AND ITS TERRITORIES. THE FIFTH DISTRICT COINCIDES WITH FEDERAL REGIONS II, III, AND IV. EACH REGIONAL RESPONSE TEAM MAINTAINS ITS OWN REGIONAL CONTINGENCY PLAN AND HAS STATE, TERRITORY, AND FEDERAL REPRESENTATION. LIKE THE NATIONAL RESPONSE TEAM, THE REGIONAL TEAMS ARE PLANNING, POLICY, AND COORDINATING BODIES. THE ON SCENE COORDINATOR IS A FEDERAL OFFICIAL PREDESIGNATED BY THE ENVIRONMENTAL PROTECTION AGENCY FOR INLAND AREAS AND BY THE COAST GUARD FOR COASTAL AREAS. EACH OF THE 48 COAST GUARD CAPTAINS OF THE PORT IS A PREDESIGNATED ON SCENE COORDINATOR. IN THIS DISTRICT, THERE ARE FOUR COAST GUARD PREDESIGNATED ON SCENE COORDINATORS - CAPTAINS OF THE PORT OF PHILADELPHIA, BALTIMORE, NORFOLK AND WILMINGTON, NORTH CAROLINA.

EACH CAPTAIN OF THE PORT HAS DEVELOPED A LOCAL CONTINGENCY PLAN FOR HIS GEOGRAPHIC ZONE. EACH PLAN HAS A DETAILED DESCRIPTION OF THE ROLES OF FEDERAL, STATE, AND LOCAL AGENCIES, AND ORGANIZATIONS COMPRISING THE REGIONAL AND LOCAL RESPONSE TEAMS. IT ALSO DESCRIBES THEIR FORMAL AND INFORMAL POLLUTION AND EMERGENCY RESPONSE PLANS. THE MAIN OBJECTIVES OF THE LOCAL CONTINGENCY PLAN ARE TO:]

1. IDENTIFY PROBABLE LOCATIONS OF DISCHARGES;

2. DEVELOP EFFECTIVE REPORTING OF POLLUTION INCIDENTS;
3. DEVELOP EFFECTIVE RESPONSE STRATEGIES;
4. INSTITUTE PROMPT AND EFFECTIVE ACTIONS TO RESTRICT THE SPREAD OF POLLUTANTS;
5. MINIMIZE DAMAGE TO WILDLIFE AND THE ENVIRONMENT;
6. ADDRESS LOCATIONS FOR THE DISPOSAL OF COLLECTED POLLUTANTS;
7. IDENTIFY GOVERNMENT, COMMERCIAL, AND INDUSTRY RESOURCES CAPABLE OF RESPONDING TO SPILLS; AND
8. IDENTIFY PROCEDURES FOR INITIATING ACTIONS FOR THE RECOVERY OF CLEAN UP COSTS AND PERFORMANCE OF ENFORCEMENT ACTIONS, AS NECESSARY.

IT IS IMPORTANT TO NOTE THAT ALL FEDERAL CONTINGENCY PLANS ALLOW FOR THE INCORPORATION OF STATE AND LOCAL PLANS, ALONG WITH PLANS DEVELOPED BY INDUSTRY AND OIL SPILL CLEANUP COOPERATIVES. EACH FEDERAL PLAN ALSO CALLS FOR THE MOBILIZATION OF REGIONAL COAST GUARD RESOURCES, AND FOR THE ACTIVATION OF MEMBERS OF SPECIAL RESPONSE FORCES INCLUDING THE COAST GUARD'S NATIONAL STRIKE TEAMS AND PUBLIC INFORMATION ASSISTANCE TEAM, THE ENVIRONMENTAL PROTECTION AGENCY'S EMERGENCY RESPONSE TEAM, AND THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S SCIENTIFIC SUPPORT COORDINATORS.

THE RESPONSIBILITY FOR CLEANING UP AN OIL SPILL LIES WITH THE PARTY RESPONSIBLE FOR SPILLING THE OIL. THE FEDERAL ON SCENE COORDINATOR IS REQUIRED TO MONITOR RESPONSIBLE PARTY RESPONSE ACTIONS TO ENSURE THAT SPILLS

ARE CLEANED UP IN AN ACCEPTABLE AND TIMELY MANNER AND THAT DAMAGE TO THE ENVIRONMENT IS MINIMIZED. IF THE RESPONSIBLE PARTY IS UNABLE OR UNWILLING TO RESPOND, OR IF THE RESPONSE EFFORT IS UNSATISFACTORY, THE ON SCENE COORDINATOR HAS THE AUTHORITY TO INTERVENE AND TAKE OVER THE CLEAN UP EFFORTS. SECTION 311(K) OF THE CLEAN WATER ACT PROVIDES FUNDS FOR THE ON SCENE COORDINATOR TO TAKE IMMEDIATE ACTION TO CLEAN UP A SPILL.

THE COAST GUARD HAS NO AUTHORITY TO REQUIRE INDUSTRY TO PRE-STAGE SPECIFIC RESOURCES AND PERSONNEL FOR RESPONSE OR CLEAN UP. FURTHERMORE, THE COAST GUARD HAS NO AUTHORITY TO REQUIRE CONTINGENCY PLANS FOR VESSELS. THE COAST GUARD DOES HAVE AUTHORITY TO REQUIRE MARINE OIL TRANSFER FACILITIES TO HAVE READY ACCESS TO SUFFICIENT OIL CONTAINMENT MATERIAL AND EQUIPMENT TO CONTAIN ANY OIL DISCHARGED ON THE WATER FROM OPERATIONS AT THAT FACILITY. THE COAST GUARD REQUIRES THE FACILITY TO MAINTAIN AN OPERATIONS MANUAL. THIS MANUAL MUST INCLUDE CONTAINMENT AND CLEAN UP PROCEDURES, SPILL NOTIFICATION PROCEDURES, AND AN INVENTORY OF SPILL EQUIPMENT. THE COAST GUARD REVIEWS AND APPROVES THESE OPERATIONS MANUALS, AND CONDUCTS PERIODIC INSPECTIONS OF THE TERMINALS. CAPTAINS OF THE PORT, WITHIN THE FIFTH DISTRICT, HAVE OPERATIONS MANUALS ON FILE FOR EACH OF THE 221 FACILITIES UNDER THEIR JURISDICTION.

I WOULD LIKE TO BRIEFLY MENTION SEVERAL OTHER ISSUES THAT ARE BEING CONSIDERED AS A RESULT OF THE VALDEZ OIL SPILL.

FIRST: WHETHER CERTAIN LAWS AND REGULATIONS DEALING WITH ISSUING, RENEWING, AND SUSPENDING OR REVOKING MERCHANT MARINERS' LICENSES AND DOCUMENTS SHOULD BE STRENGTHENED. FOR EXAMPLE, WITH THE EXCEPTION OF A CONVICTION OF A DANGEROUS DRUG OFFENSE OR USE OF A DANGEROUS DRUG, A SEAMAN'S LICENSE CAN ONLY BE SUSPENDED OR REVOKED FOR MISCONDUCT WHICH OCCURS WHILE HE OR SHE IS ACTING UNDER THE AUTHORITY OF THAT LICENSE. WE ARE CONSIDERING LEGISLATION WHICH WILL AUTHORIZE THE COAST GUARD TO INITIATE SUSPENSION OR REVOCATION PROCEEDINGS FOR MISCONDUCT INVOLVING ALCOHOL ABUSE OCCURRING OUTSIDE THE SCOPE OF THE AUTHORITY OF THE LICENSE OR AS A RESULT OF STATE ACTION AGAINST A MOTOR VEHICLE OPERATORS LICENSE.

SECOND: WHETHER FEDERAL APPROVAL SHOULD BE REQUIRED FOR ALL CONTINGENCY PLANS.

THIRD: WHETHER THE LAWS REGARDING FEDERALIZATION OF REMOVAL EFFORTS SHOULD BE CHANGED TO REQUIRE IMMEDIATE FEDERALIZATION IN ALL OIL SPILLS.

FOURTH: THE PRESIDENT, AS YOU KNOW, HAS ORDERED A NATIONWIDE REVIEW OF ALL OIL SPILL CONTINGENCY PLANS. THE COAST GUARD HAS ALREADY REQUIRED ITS MARINE SAFETY OFFICES TO REVIEW THEIR LOCAL CONTINGENCY PLANS. THIS PROCESS WILL INCLUDE A COMPREHENSIVE RISK ANALYSIS WITHIN EACH PORT AREA, WITH THE INTENTION OF IDENTIFYING SHORTFALLS IN

RESOURCES AND PLANS. THIS REVIEW WILL GIVE US A GOOD ASSESSMENT OF OUR CAPABILITIES TO CONDUCT A RESPONSE TO A MAJOR SPILL IN ANY U.S. PORT OR HARBOR.

WITHIN THE FIFTH DISTRICT, WE BEGAN A RE-EMPHASIS AND REVIEW OF OUR MARINE ENVIRONMENTAL PROTECTION PROGRAMS IN THE FALL OF 1987 THROUGH OUR EXTENSIVE RRT TRAINING PROGRAM CONDUCTED IN CONJUNCTION WITH COAST GUARD HEADQUARTERS UNITS. SINCE 1987 THE FIFTH DISTRICT HAS MAINTAINED A DRILL/PREPAREDNESS TEMPO THREE TIMES THAT OF THE NATIONAL AVERAGE. THROUGH THESE EXERCISES WE HAVE IDENTIFIED A NUMBER OF AREAS WHERE IMPROVEMENTS CAN AND ARE BEING MADE. EFFORTS ARE UNDERWAY TO IMPROVE THE TRAINING GIVEN TO DISTRICT SPILL RESPONSE PERSONNEL AND MORE EMPHASIS HAS BEEN GIVEN TO INTERGOVERNMENTAL TEAM BUILDING. THE REVIEW OF CONTINGENCY PLANS IN THIS DISTRICT IS WELL UNDERWAY. OUR EXISTING PLANS HAVE SERVED US WELL IN ACTUAL SPILL RESPONSE INCIDENTS BUT WE ARE TAKING A CLOSE LOOK AT THEM TO IDENTIFY AREAS WHICH CAN BE IMPROVED. INCLUDED IN THIS REVIEW ARE THE LOCAL PLANS MAINTAINED BY THE ON SCENE COORDINATORS; THE REGIONAL RESPONSE PLAN MAINTAINED JOINTLY BY THE COAST GUARD, AND THE ENVIRONMENTAL PROTECTION AGENCY.

THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE THIS SUBCOMMITTEE.

TESTIMONY OF
CAPTAIN LARRY A. MURDOCK
BEFORE THE
HOUSE COMMITTEE ON MERCHANT MARINE & FISHERIES, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATION
JULY 17, 1989

GOOD MORNING, MR. CHAIRMAN, I AM CAPTAIN LARRY A. MURDOCK, THE COAST GUARD CAPTAIN OF THE PORT, PHILADELPHIA. AS THE CAPTAIN OF THE PORT I AM THE PREDESIGNATED, FEDERAL ON-SCENE COORDINATOR (OSC) FOR THE COASTAL AREAS WITHIN MY GEOGRAPHIC ZONE OF RESPONSIBILITY. THIS AREA INCLUDES THE DELAWARE RIVER AND BAY AND 12 NAUTICAL MILES OFFSHORE FROM TOMS RIVER, NEW JERSEY SOUTH TO THE DELAWARE-MARYLAND BORDER.

AS OSC MY RESPONSIBILITIES INCLUDE PLANNING FOR, COORDINATING, AND DIRECTING FEDERAL RESPONSE TO OIL OR HAZARDOUS SUBSTANCE RELEASES OR POTENTIAL RELEASES.

AT 0446 ON THE MORNING OF JUNE 24, 1989, THE MOTOR VESSEL PRESIDENTE RIVERA, A 749-FOOT URUGUAYIAN STATE OWNED OIL TANKER, REPORTED GROUNDING AT BUOY 1M CLAYMONT DELAWARE WHICH IS JUST SOUTH OF MARCUS HOOK, PENNSYLVANIA. THE GROUNDING DAMAGED THE NUMBER 1 STARBOARD, AND NUMBER 1, 2, AND 7 CENTER TANKS DISCHARGING APPROXIMATELY 300,000 GALLONS OF NUMBER SIX OIL. AT THE TIME OF THE INCIDENT THE VESSEL WAS CARRYING APPROXIMATELY 19 MILLION GALLONS OF THIS OIL.

UPON NOTIFICATION BY THE STATE PILOT ON BOARD THE VESSEL THAT OIL WAS LEAKING INTO THE DELAWARE RIVER, THE LOCAL CONTINGENCY PLAN (LCP) FOR PHILADELPHIA WAS IMMEDIATELY ACTIVATED AND UNIT PERSONNEL WERE RECALLED TO ASSIST IN THE RESPONSE. BY 0600, NOTIFICATIONS WERE MADE TO THE FIFTH COAST GUARD DISTRICT, THE REGIONAL RESPONSE TEAM (RRT), THE NATIONAL RESPONSE CENTER (NRC), THE MULTI AGENCY LOCAL RESPONSE TEAM (MALRT), THE STATES OF NEW JERSEY, PENNSYLVANIA, AND DELAWARE, ENVIRONMENTAL PROTECTION AGENCY (EPA) REGIONS II AND III AND THE DELAWARE RIVER AND BAY (DELBAY) COOPERATIVE. BY 0650 A SAFETY ZONE WAS ESTABLISHED TO CONTROL SHIPPING THROUGH THE AREA IMPACTED BY THE INCIDENT AND COAST GUARD VESSELS WERE ON SCENE FOR ENFORCEMENT.

DURING THE EARLY MORNING THE SHIP OWNER ASSUMED RESPONSIBILITY FOR THE CLEANUP, HIRED SNOW ENVIRONMENTAL TO PLACE CONTAINMENT BOOM AROUND THE SHIP AND HIRED UNDERWATER TECHNICS AS THE PRIME CONTRACTOR FOR CONDUCTING THE CLEANUP OPERATION. THE DELAWARE BAY AND RIVER COOPERATIVE WAS ALSO ACTIVATED TO ASSIST WITH CLEANUP ACTIVITIES.

BY MID-MORNING THE SHIP WAS SURROUNDED WITH BOOM, A COAST GUARD INSPECTOR AND INVESTIGATOR BOARDED THE SHIP AND LIGHTERING OPERATIONS WERE STARTED TO REFLOAT THE SHIP. THE DELBAY COOPERATIVE WAS EXECUTING THE LCP BY PLACING BOOMS IN PREDESIGNATED LOCATIONS TO PROTECT NATURAL RESOURCES AND FACILITATE CLEANUP. A SALVAGE AND CLEANUP FIELD COMMAND POST WAS ESTABLISHED IN OFFICES PROVIDED ON SITE BY SUN OIL COMPANY. THE PRIMARY CONTRACTOR HAD ALSO ESTABLISHED HIS COMMAND CENTER THERE.

THE COAST GUARD ATLANTIC STRIKE TEAM ARRIVED THAT AFTERNOON WITH HIGH SEAS BOOM.

THE FIRST MALRT MEETING WAS HELD AT ABOUT 1200 AT MARINE SAFETY OFFICE (MSO), PHILADELPHIA AND THE MALRT MEMBERS, THE NOAA SCIENTIFIC SUPPORT TEAM AND REGIONAL RESPONSE TEAM (RRT) MEMBERS TOOK UP RESIDENCE AT THE MSO FOR THE FIRST WEEK OR MORE OF THE RESPONSE. THIS GROUP INCLUDED AS MANY AS 10-20 PEOPLE PROVIDING ADVICE IN THEIR SPECIALTY AREA OR LIAISON WITH THEIR AGENCIES.

WHEN COMMUNICATIONS WERE ADEQUATELY ESTABLISHED, WE MOVED OUR PRIMARY FIELD COMMAND CENTER TO THE PORT OF WILMINGTON, DELAWARE AND RETAINED A SECONDARY FIELD SITE WITH THE CONTRACTOR AT SUN OIL COMPANY.

ON THE MORNING OF JUNE 25 THE SHIP WAS REFLOATED ON THE HIGH TIDE AND PROCEEDED TO SUN OIL TERMINAL IN MARCUS HOOK, PENNSYLVANIA WHERE IT WAS BOOMED OFF, LIGHTERED AND SURVEYED.

THE CHARACTERISTICS OF THE NUMBER SIX OIL INITIALLY CAUSED SIGNIFICANT CLEANUP PROBLEMS. THIS PRODUCT HAS A POUR POINT OF ABOUT 96 DEGREES FAHRENHEIT AND IS HEATED DURING SHIPMENT AND FOR TRANSFER. WHEN IT WAS RELEASED SOME 40 FEET UNDER THE 72 DEGREE FAHRENHEIT RIVER WATER, IT SURFACED IN A CONGEALED, HEAVY TAR-LIKE STATE AND BROKE INTO LARGE BLOBS OR CLUMPS. FLOATING WEIR SKIMMERS AND SUCTIONS SKIMMERS LIKE THE ASTON SUN COULD NOT HANDLE IT. THE BELTED INCLINED PLAN SYSTEM ON THE DELBAY SKIMMER

COULD RECOVER THE MATERIAL WITH THE BELT HELD STATIONARY, BUT IT WAS ALMOST IMPOSSIBLE TO OFFLOAD THE COLLECTED MATERIAL.

CONTAINMENT BOOMS ON SCENE WERE NOT HEAVY ENOUGH, AND DID NOT GO DEEP ENOUGH INTO THE WATER, TO PREVENT THIS HEAVY MATERIAL FROM STRIKING THE BOOM AND PASSING UNDERNEATH. VACUUM TRUCKS WERE NOT EFFECTIVE ON THE MATERIAL NEAR AND ON SHORE. THE ONLY EFFECTIVE MEANS OF RECOVERY WAS TO PHYSICALLY PICK UP THE CLUMPS AND PLACE THEM IN A CONTAINER. A MANPOWER AND WORK BOAT INTENSIVE CLEANUP WAS REQUIRED FROM THE VERY START.

DURING THE FIRST TWO DAYS OF THE SPILL THE PRIME CONTRACTOR WAS NOT ABLE TO OBTAIN ENOUGH PEOPLE AND WORK BOATS TO PHYSICALLY REMOVE THE OIL FROM THE WATER AND THE BEACHES. THE OIL POLLUTION CONTRACTORS IN THE PHILADELPHIA AREA, INCLUDING BALTIMORE AND NEW YORK, COULD NOT PROVIDE PERSONNEL IN SUFFICIENT NUMBERS DUE TO THE WEEKEND AND DUE TO THEIR ALREADY SENDING FIRST LINE RESOURCES TO THE NARRAGANSETT AND OTHER SPILLS. WE AND THE OTHER MALRT MEMBERS TRIED AND COULD NOT ADD LARGE NUMBERS OF RESOURCES FROM ALL OF OUR KNOWN SOURCES.

WHILE VISITING THE MARINE SAFETY OFFICE ON SUNDAY, THE GOVERNORS OF DELAWARE AND PENNSYLVANIA STATED THAT THEIR NATIONAL GUARD UNITS WERE A READY MANPOWER RESOURCE. SUNDAY EVENING, AT OUR SUGGESTION, THE CONTRACTOR REQUESTED 300 NATIONAL GUARDSMEN FROM DELAWARE TO FILL THE SHORTFALL. DELAWARE RESPONSE AUTHORITIES AGREED THAT 300 GUARDSMEN WAS AN APPROPRIATE NUMBER AND COMMITTED

THEM FOR RIVER BANK CLEANUP. ON MONDAY, 125 TROOPS WERE ON HAND WITH 154 CIVILIANS. BY WEDNESDAY, 194 TROOPS WERE ON-HAND WITH 387 CIVILIANS. ON THURSDAY, THE MANPOWER PROBLEM HAD PASSED AS THE CONTRACTOR PROVIDED 441 PERSONNEL AND THE NATIONAL GUARD TROOPS WERE RELEASED FROM DUTY.

OUR PROBLEMS WITH THE FLOATING OIL BEGAN TO BE SOLVED ON SUNDAY WHEN THE COAST GUARD ATLANTIC STRIKE TEAM DEPLOYED THEIR OPEN WATER OIL RECOVERY CONTAINMENT SYSTEM. IT WAS TOWED BY TWO TUGS IN A U-SHAPED CONFIGURATION MOVING WITH THE TIDE TO GATHER THE CLUMPS OF OIL. ONCE COLLECTED, THE OIL WAS THEN PICKED UP BY LARGE CLAM SHELL DREDGES AND PUT INTO OPEN HOPPER BARGES.

ULTIMATELY, WE DEPLOYED THREE SUCH SYSTEMS USING TWO COAST GUARD ATLANTIC STRIKE TEAM BOOMS AND A THIRD BOOM LOANED BY THE STATE OF MARYLAND. THE MARYLAND BOOM WAS DEPLOYED BY TWO 55 FOOT COAST GUARD AIDS TO NAVIGATION BOATS FROM CAPE MAY AND BALTIMORE THAT WORKED IN COMPANY WITH AN ARMY CORPS OF ENGINEERS DREDGE. THE FIRST ATLANTIC STRIKE TEAM BOOM HAD BEEN DIVERTED TO US WHILE ENROUTE TO THE NARRAGANSETT SPILL AND THE SECOND WAS BROUGHT FROM NARRAGANSETT WHEN IT WAS DETERMINED NOT TO BE NEEDED THERE. ALSO THE FISHING VESSEL WHITE DOVE'S TRAWLING WITH NETS WAS EFFECTIVE. BY WEDNESDAY THERE WAS NO FREE FLOATING OIL REMAINING IN THE DELAWARE RIVER.

WHILE EACH RESPONSE ORGANIZATION HAD ADEQUATE COMMUNICATIONS WITHIN THEIR ORGANIZATION, THERE WERE EARLY PROBLEMS

COMMUNICATING ACROSS ORGANIZATIONS AND COORDINATING FIELD ACTIVITIES. IT WAS DIFFICULT TO MAINTAIN COMMUNICATIONS AMONG EIGHT CONTRACTORS WORKING 10 SITES EACH WITH TWO COAST GUARDSMEN MONITORING PROGRESS, THREE PRIMARY OPERATIONS CENTERS, NUMEROUS SMALL BOATS AND SHIPS, AND STATE AND FEDERAL FIELD REPRESENTATIVES.

INITIALLY THERE WAS A LACK OF PHONE LINES, PORTABLE RADIOS, AND WORKING FREQUENCIES. THESE PROBLEMS WERE OVERCOME WITH THE ASSISTANCE OF MOBIL OIL COMPANY'S COMMUNICATIONS SYSTEM. THIS SYSTEM PROVIDED TWO COMMUNICATIONS TRAILORS EQUIPPED WITH TELEPHONES AND 75 HAND HELD RADIOS WITH FOUR SEPARATE FREQUENCIES SOLELY FOR CLEANUP OPERATIONS. THESE RADIOS WERE DISTRIBUTED TO CONTRACTORS, COAST GUARD MONITORS AND OTHER FEDERAL AND STATE REPRESENTATIVES PERFORMING FIELD SURVEYS. THIS PORTABLE RADIO SYSTEM WAS THEN BACKED UP WITH CELLULAR PHONES FOR EACH WORK SITE.

TO PLACE THIS EXTENSIVE COMMUNICATIONS SYSTEM IN PLACE TOOK A TEAM OF 5 PEOPLE, 3 MOBIL EMPLOYEES AND 2 COAST GUARDSMEN, WORKING ROUND THE CLOCK TO SITUATE ANTENNAS AND REPEATERS, ARRANGE FOR PHONE LINES, AND SETUP AND DISTRIBUTE RADIOS AND CELLUAR PHONES. THIS PROCESS TAKES TIME AND CONTINUOUS ATTENTION TO MAINTAIN.

SHORTLY AFTER THE INCIDENT, THE COAST GUARD CONVENED A FORMAL BOARD OF INVESTIGATION WHICH IS STILL IN THE PROCESS OF GATHERING

INFORMATION TO ESTABLISH THE PRIMARY CAUSE AND OTHER FACTORS THAT MAY HAVE CONTRIBUTED TO THE CASUALTY. EARLY INDICATIONS ARE THAT HUMAN ERROR AS OPPOSED TO EQUIPMENT FAILURE MAY LIKELY BE THE PRIMARY CAUSE. INITIAL TESTIMONY INDICATES THAT THE VESSEL'S ANCHOR WHICH WAS ACCIDENTALLY DROPPED WHILE THE PRESENDENTE RIVERA WAS UNDERWAY IN THE DELAWARE RIVER LED TO THE CASUALTY. OTHER FACTORS WHICH MAY BE INVESTIGATED ARE CREW QUALIFICATIONS AND EXPERIENCE, FATIGUE, INSUFFICIENT LIGHTING AND MANEUVERING ACTIONS.

AS OF JULY 12, ABOUT 400,000 GALLONS OF OIL AND OILY DEBRIS HAD BEEN RECOVERED. THIS REPRESENTS ABOUT 75% OF THE TOTAL QUANTITY OF OIL RELEASED INTO THE DELAWARE RIVER. THE SHORE CLEANUP PROCEEDED WITH THE PLACEMENT OF SNARE (OLEFILIC POM POMS) IN AFFECTED MARSHLANDS BY JULY 3. AS THESE SNARES REMOVE THE OIL FROM THE MARSH GRASSES THEY WILL CONTINUE TO BE REPLACED. THE MILES OF IMPACTED BEACHES WERE ALL INITIALLY CLEANED BY JULY 4. THIS WAS ACCOMPLISHED MANUALLY WITH RAKES, SHOVELS, AND PITCH FORKS. THESE BEACHES WILL CONTINUE TO BE MONITORED AND CLEANED, AS NECESSARY, UNTIL THE COMPLETION OF THE CLEANUP IS JOINTLY AGREED UPON BY THE STATES, COAST GUARD AND CONTRACTOR.

THE PRIMARY NATURAL RESOURCES THIS SPILL IMPACTED ARE THE MARSH HABITAT, NESTING AND FEEDING BIRDS, AND INTERTIDAL ANIMALS. BECAUSE THE NUMBER 6 OIL IS NOT VERY WATER SOLUBLE, NO IMPACT IS EXPECTED TO FISH POPULATIONS.

THE MILES OF MARSH HABITAT ALONG THE DELAWARE RIVER RECEIVED FROM LIGHT TO HEAVY IMPACT. THESE MARSHES PROVIDE HABITAT FOR WADING BIRDS, AND IN THE FALL THROUGH SPRING, FOR WATERFOWL. BIRDS OF CONCERN ARE HERONS (5 SPECIES), EGRETS (2 SPECIES), GLOSSY IBIS (PLEGADIS FALCINELLUS), CANADA GEESE AND DUCKS.
HABITAT OF PARTICULAR ENVIRONMENTAL IMPORTANCE THAT WAS THREATENED BY THE OIL SPILL WAS PEA PATCH ISLAND. THIS ISLAND PROVIDES A LARGE NESTING GROUND FOR HERONS. IT CURRENTLY HAS 12,000 NESTING PAIRS OF HERONS. DUE TO CLEANUP EFFORTS, PROTECTIVE DEFLECTION BOOMING AND ITS DISTANCE FROM THE INITIAL SPILL, THIS ISLAND RECEIVED ONLY MINOR GLOBULES OF OIL ON ITS BEACHES AND THESE WERE QUICKLY REMOVED WITHOUT DISTURBING THE WILDLIFE.

THE CREEKS LEADING INTO THE DELAWARE RIVER ALSO HAVE EXTENSIVE MARSH AREAS. THE MOUTHS OF THESE CREEKS WERE IMMEDIATELY BOOMED TO PREVENT OIL FROM ENTERING THE SHELTERED MARSHES THAT THESE CREEKS DRAIN. THESE PROTECTIVE BARRIERS WORKED WELL TO PREVENT PENETRATION OF OIL INTO THE BACK CREEKS AND MARSHES. HOWEVER, BECAUSE OF THE DIFFICULTY IN HAVING FIRM POINTS TO ANCHOR THE PROTECTIVE BOOMS IN CERTAIN CREEKS, THESE BOOMS OFTEN HAD TO BE REANCHORED AND CONTINUOUSLY TENDED. RECREATIONAL BOATERS MOORED IN THESE CREEKS ALSO CAUSED PROBLEMS BY RIDING OVER THE BOOMS OR DISCONNECTING THEM. WITH THE HELP OF STATE MARINE POLICE UNITS THIS PROBLEM WAS OVERCOME.

BIRD POPULATIONS OF GULLS AND TERNS WERE DIRECTLY IMPACTED BY SWIMMING IN THE OILED WATER. THE WADING BIRDS WILL BE IMPACTED INDIRECTLY BY CONTAMINATION FROM CONTACT WITH THE OILED MARSH GRASSES. CURRENT FIGURES SHOW 119 OILED BIRDS HAVE BEEN BROUGHT TO THE TRI-STATE BIRD RESCUE CENTER IN WILMINGTON, DELAWARE. OF THESE, 110 HAVE BEEN CANADA GEESE THAT HAVE NOT MIGRATED NORTH, 2 HERONS AND 7 MALLARDS WERE ALSO OILED. THE TOTAL MORTALITY FOR BIRDS, AS OF 6 JULY, WAS 9.

FISH (ALEWIFE (ALOSA PSUEDOHARENGUS), BLUE HERRING (ALOSA AESTIVALIS), AMERICAN SHAD (ALOSA SAPIDISSIMA), STURGEON (2 SPECIES) AND WHITE PERCH (MORONE AMERICANA)) ARE NOT EXPECTED TO BE IMPACTED BY THE SPILL, BUT NO FISHING SHOULD BE CONDUCTED IN THE VICINITY OF THE OIL, SINCE IT MAY RESULT IN OIL CONTAMINATION OF EQUIPMENT AND THE CATCH.

CRAB POT SURVEYS AND BENTHIC TRAWLS CONDUCTED BY NOAA AND THE DELAWARE DEPARTMENT OF FISH AND WILDLIFE INDICATE THAT THERE IS SIGNIFICANT IMPACT ON THE BLUE CRAB (CALLINECTES SAPIDUS) IN THE DELAWARE RIVER FROM THE DELAWARE-PENNSYLVANIA STATE LINE TO PEA PATCH ISLAND. APPROXIMATELY 22% OF THE CATCH IN THIS AREA SHOWED SOME DEGREE OF OILING. THIS AREA IS CLOSED TO CRABBING. THIS IMPACT CONSISTS OF OIL APPEARING ON CRAB BODIES (SHELL, LEGS, AND MOUTH), AND ON AND IN THE CRAB POTS THEMSELVES. IT IS BELIEVED THAT A SLIGHT DEGREE OF OILING ON CRABS WILL NOT BE SUFFICIENT TO CAUSE MORTALITY; HOWEVER, IF LARGE AMOUNTS OF OIL ARE DIGESTED THIS COULD CAUSE A LARGER PROBLEM. WITHIN THE NEXT MONTH MOST

CRABS WILL BE SHEDDING THEIR SHELLS AND THUS CLEANSING THEMSELVES ON THE SURFACE.

OUR PRELIMINARY ENVIRONMENTAL ASSESSMENT IS THAT THERE IS NO SHORT TERM DEVASTATING IMPACTS ON THE NATURAL RESOURCES OF THE AREA. REPRESENTATIVES OF THE TRUSTEES (FEDERAL AND STATE AGENCIES RESPONSIBLE FOR THEIR RESPECTIVE NATURAL RESOURCES) MET ON 30 JUNE TO DISCUSS PRELIMINARY DAMAGE ASSESSMENT ISSUES, INCLUDING THE INITIAL IDENTIFICATION OF RESOURCES SUSTAINING INJURY AS A RESULT OF THIS INCIDENT AND THE STATUS OF DATA COLLECTION. IT APPEARS THAT THE NATURAL RESOURCES OF DELAWARE, INCLUDING WETLANDS, BIRD POPULATIONS AND BLUE CRAB FISHERIES, HAVE SUSTAINED THE GREATEST IMPACTS. OTHER STEPS IN THE PREASSESSMENT PHASE THAT WILL BE TAKEN BY THE TRUSTEES IN THE IMMEDIATE FUTURE ARE EVALUATION OF: (1) DATA COLLECTED; (2) DATA NEEDS; AND (3) THE APPROPRIATE METHODS FOR DETERMINING THE EXTENT OF INJURY. UPON COMPLETION OF THESE STUDIES A MORE COMPLETE AND ACCURATE ASSESSMENT OF THE ENVIRONMENTAL DAMAGES WILL BE AVAILABLE.

MR. CHAIRMAN, THAT CONCLUDES MY TESTIMONY. I WILL BE GLAD TO ANSWER ANY QUESTIONS THAT YOU MAY HAVE.

Testimony of

JOHN H. BATES

VICE PRESIDENT, SUN TRANSPORT INC.

on Behalf of the

AMERICAN PETROLEUM INSTITUTE

on

Oil Spill Response and Clean-up

Before the

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

of the

HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES

Philadelphia, PA
July 17, 1989

MR. CHAIRMAN, MY NAME IS JOHN H. BATES, VICE PRESIDENT, SUN TRANSPORT, INC., AND MEMBER OF THE AMERICAN PETROLEUM INSTITUTE'S (API) MARINE TRANSPORTATION COMMITTEE. TODAY I AM REPRESENTING API, A TRADE ASSOCIATION OF 200 COMPANIES INVOLVED IN ALL ASPECTS OF THE OIL AND NATURAL GAS INDUSTRY, INCLUDING EXPLORATION, PRODUCTION, TRANSPORTATION, REFINING AND MARKETING. I WELCOME THIS OPPORTUNITY TO COMMENT ON OIL SPILL RESPONSE AND CLEAN-UP.

OBVIOUSLY OUR INDUSTRY IS IN THE THROES OF A DIFFICULT AND CHALLENGING PERIOD. WE ARE MAKING A MAJOR EFFORT WITHIN THE INDUSTRY AND WITH GOVERNMENT AT ALL LEVELS TO MAKE IMPROVEMENTS IN RESPONSE, CONTAINMENT, AND CLEAN-UP OF OIL SPILLS. PROGRESS HAS BEEN MADE, BUT MUCH REMAINS TO BE DONE.

ON APRIL 7, 1989, RICHARD M. MORROW, CHAIRMAN OF AMOCO CORPORATION, AND CHAIRMAN OF THE BOARD OF API, ANNOUNCED THAT THE API BOARD OF DIRECTORS HAD ESTABLISHED A TOP-LEVEL TASK FORCE TO REVIEW INDUSTRY OPERATIONS IN THE AREAS OF OIL SPILL PREVENTION AND RESPONSE. ALLEN E. MURRAY, CHAIRMAN OF MOBIL CORPORATION, WAS NAMED CHAIRMAN OF THE TASK FORCE AND WAS ASKED TO DEVELOP A RECOMMENDED PROGRAM FOR ADDRESSING THE OIL SPILL PROBLEM WITHIN THREE MONTHS. THE TASK FORCE WAS COMPRISED OF THE CHIEF EXECUTIVES OR PRESIDENTS OF THE FOLLOWING COMPANIES: AMOCO

CORPORATION, ARCO, BP AMERICA INC., CHEVRON CORPORATION, EXXON CORPORATION, MOBIL CORPORATION, SHELL OIL COMPANY, AND TEXACO INC.

API'S OIL SPILL TASK FORCE HAS COMPLETED ITS WORK AND ISSUED ITS REPORT AND RECOMMENDED THAT SIGNIFICANT ACTION BE TAKEN BY THE INDUSTRY IN THREE MAJOR AREAS - PREVENTION OF SPILLS, RESPONSE TO SPILLS, AND SPILL-RELATED RESEARCH. THE TASK FORCE'S RECOMMENDATIONS ARE IN MANY WAYS CONSISTENT WITH THE DIRECTION BEING TAKEN BY THE ADMINISTRATION AND CONGRESS ON THIS ISSUE. WE BELIEVE THE TASK FORCE'S RECOMMENDATIONS SHOULD PROVIDE THE BASIS FOR A MEANINGFUL DIALOGUE IN DEVELOPING A COOPERATIVE APPROACH TO THE OIL SPILL ISSUE. A COPY OF THE TASK FORCE'S REPORT IS INCLUDED FOR THE RECORD.

THE TASK FORCE'S RECOMMENDATIONS PRESENTLY ARE BEING IMPLEMENTED AS FOLLOWS. THE PREVENTION PORTION OF THE PROGRAM IS BEING HANDLED BY THE API MARINE TRANSPORTATION COMMITTEE OF WHICH I AM A MEMBER. THE RESPONSE AND RESEARCH PARTS OF THE PROGRAM WILL BE IMPLEMENTED BY A NEW PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO). PIRO IS AN INDEPENDENT ORGANIZATION, VOLUNTARILY FUNDED BY INDUSTRY, MANAGED BY ITS OWN BOARD OF DIRECTORS AND DESIGNED TO COORDINATE CLOSELY WITH THE COAST GUARD. TO DATE, COMPANIES REPRESENTING ALMOST THREE-QUARTERS OF THE WATERBORNE RECEIPTS OF: (1) FOREIGN CRUDE IMPORTS INTO THE

UNITED STATES (EXCLUDING CANADIAN IMPORTS); (2) ALASKAN CRUDE MOVED TO THE CONTINENTAL UNITED STATES; AND, (3) HEAVY FUEL OIL MOVEMENTS, HAVE JOINED PIRO AND MANY MORE ARE CONSIDERING MEMBERSHIP. ITS INITIAL ORGANIZATIONAL MEETING WILL BE HELD WITHIN THE WEEK.

AN OVERVIEW OF THE RECOMMENDATIONS FOLLOWS:

1. RESPONSE: AN INDUSTRY FUNDED PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO) WILL BE ESTABLISHED TO CONSIST OF A HEADQUARTERS GROUP AND FIVE REGIONAL RESPONSE CENTERS.

WHILE THE DETAILS OF THE PROPOSAL ARE TO BE FURTHER REFINED BY PIRO ITSELF IN CONJUNCTION WITH THE ADVISE AND COOPERATION OF A NUMBER OF GOVERNMENT ENTITIES; THE API OIL SPILL TASK FORCE'S REPORT RECOMMENDS THAT THE HEADQUARTERS BE LOCATED IN WASHINGTON, D.C. TO COORDINATE ITS ACTIVITIES WITH THE FEDERAL GOVERNMENT'S NATIONAL RESPONSE TEAM; THAT PIRO MAINTAIN AN OIL SPILL RELATED DATA BANK AND PARTICIPATE IN OIL SPILL RELATED RESEARCH; AND PROVIDE TRAINING AND AUDITING GUIDANCE TO REGIONAL OFFICES. MOST IMPORTANTLY, THE PIRO HEADQUARTERS STAFF WOULD COORDINATE A PIRO MULTI-REGION RESPONSE.

THE REGIONAL RESPONSE CENTERS WOULD PROVISIONALLY BE LOCATED IN THE NEW YORK TRI-STATE AREA, NORFOLK, NEW ORLEANS, LONG BEACH

AND SEATTLE. REGIONAL RESPONSE CENTERS WOULD COORDINATE THEIR ACTIVITIES WITH THE FEDERAL GOVERNMENT'S REGIONAL RESPONSE TEAMS, AUDIT AND PROVIDE TRAINING TO LOCAL COOPERATIVES AND INDUSTRY FACILITIES, AND RESPOND TO SPILLS BEYOND LOCAL CAPABILITY. EACH CENTER WOULD BE MANNED AROUND THE CLOCK WITH DEDICATED, TRAINED PERSONNEL AND EQUIPPED WITH PROPERLY MAINTAINED CONTAINMENT, MECHANICAL RECOVERY, DISPERSAL, AND SHORELINE CLEAN-UP EQUIPMENT. EACH CENTER WOULD BE SIZED TO HAVE A 30,000 TON SPILL RESPONSE CAPABILITY.

IT IS ESTIMATED THAT THE ANNUAL COST OF THE PIRO STRUCTURE WILL BE $30 MILLION TO $35 MILLION. THIS INCLUDES A TEN-YEAR AMORTIZATION FACTOR FOR UP FRONT CAPITAL COSTS FOR EQUIPPING THE FIVE REGIONAL RESPONSE CENTERS AND THE HEADQUARTERS. THE UP-FRONT CAPITAL COST WOULD BE IN THE RANGE OF $70 MILLION TO $100 MILLION.

THE CAPITAL COST AND ANNUAL OPERATING COSTS WILL BE FUNDED BY INDUSTRY ALONG LINES SIMILAR TO THE CARGO OWNERS' "CONTRACT REGARDING A SUPPLEMENT TO TANKER LIABILITY FOR OIL POLLUTION (CRISTAL)" ARRANGEMENT. THIS WOULD ENTAIL A CHARGE TO INDUSTRY MEMBERS BASED ON CRUDE AND HEAVY FUEL OIL CARRIED BY SEA AND RECEIVED BY INDUSTRY MEMBERS AT U.S. FACILITIES. THERE IS NO PERFECT ALLOCATION SYSTEM BUT THIS ONE IS RELATIVELY SIMPLE IN CONCEPT, HAS WORKED WELL, AND PROVIDES A LOGICAL FIT WITH THE PROBLEM AT HAND.

THE API TASK FORCE ALSO RECOMMENDS THAT THE SECRETARY OF TRANSPORTATION MANAGE MAJOR SPILLS. THE SECRETARY HAS A LEGAL RESPONSIBILITY TO SEE THAT SPILLS ARE PROMPTLY AND ADEQUATELY DEALT WITH AND, THROUGH THE COAST GUARD, MAINTAINS AN ORGANIZATION TO FULFILL THAT RESPONSIBILITY, WITH SUPPORT VESSELS AND AIRCRAFT READILY AVAILABLE. THROUGH ITS ROLE ON THE NATIONAL RESPONSE TEAM AND ITS INVOLVEMENT IN REGIONAL RESPONSE TEAMS, THE COAST GUARD IS WELL POSITIONED TO PROVIDE A CONSISTENT NATIONWIDE APPROACH TO SPILL MANAGEMENT AND THE SECRETARY IS BETTER POSITIONED THAN INDUSTRY TO RESOLVE THE DIVERSE INTERESTS OF FEDERAL, STATE, AND LOCAL AGENCIES WHICH MUST BE COORDINATED TO ALLOW QUICK AND DECISIVE SPILL MANAGEMENT. THUS THE CONCEPT IS THAT PIRO WOULD PROVIDE EQUIPMENT AND SKILLED, DEDICATED PEOPLE TO RESPOND TO MAJOR SPILLS UNDER THE LEADERSHIP OF THE SECRETARY OF TRANSPORTATION.

2. PREVENTION: API RECOMMENDS SEVERAL CHANGES THAT WILL MAKE TANKER OPERATION MORE POLLUTION RESISTANT. SOME OF THE RECOMMENDED CHANGES ARE NEW INITIATIVES, WHILE OTHERS ARE IMPROVEMENTS OF EXISTING SAFEGUARDS. IN ADDITION, SOME OF THE POSSIBLE IMPROVEMENTS IN POLLUTION PREVENTION ARE NOT CLEAR-CUT AND REQUIRE FURTHER STUDY BY AN INDEPENDENT BODY IN ORDER TO ASSURE THAT CHANGES WILL ACTUALLY IMPROVE TANKER SAFETY AND RESULT IN VESSELS WHICH ARE MORE POLLUTION RESISTANT. KEY RECOMMENDATIONS INCLUDE THE FOLLOWING:

VESSEL TRAFFIC SYSTEMS. THERE SHOULD BE MANDATORY PARTICIPATION IN U.S. COAST GUARD ADVISORY VESSEL TRAFFIC SYSTEMS. EXPANSION OF FEDERAL VESSEL TRAFFIC SYSTEMS INTO ADDITIONAL PORT AND HARBOR AREAS MAY BE JUSTIFIED BY TRAFFIC DENSITY OR NAVIGATIONAL HAZARDS.

PILOTAGE. FEDERAL LEGISLATION SHOULD BE ENACTED TO ESTABLISH HIGHER QUALIFICATIONS AND IMPROVED ADMINISTRATIVE STANDARDS FOR ALL STATE PILOTS IN U.S. WATERS.

TUG ASSISTANCE. WHERE EXTRAORDINARY NAVIGATIONAL HAZARDS ARE DEEMED TO EXIST BY THE U.S. COAST GUARD, VESSELS SHOULD BE REQUIRED TO HAVE: (I) TUG ASSISTANCE, OR (II) TWIN SCREWS, OR (III) BOW THRUSTERS, OR (IV) OTHER SUITABLE EQUIPMENT ENABLING ENHANCED INDEPENDENT MANEUVERING.

DRUGS AND ALCOHOL. U.S. COAST GUARD AUTHORITY SHOULD BE EXPANDED TO ALLOW FOR DRUG AND ALCOHOL TESTING AS A PART OF OFFICER LICENSING PROCEDURES. COMPANY POLICIES SHOULD BE ESTABLISHED TO DETERMINE SUBSTANCE ABUSE AND TO ENCOURAGE TREATMENT.

VESSEL CREW COMPLEMENT. INDUSTRY SHOULD CONTINUE TO SUPPORT THE U.S. COAST GUARD ROLE IN SETTING MANNING STANDARDS.

LICENSING, CERTIFICATION AND TRAINING OF MARINE PERSONNEL. THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING AND CERTIFICATION OF WATCHKEEPERS (STCW) SHOULD BE RATIFIED BY THE U.S. GOVERNMENT. IN ADDITION, IMPROVEMENTS ARE NEEDED IN U.S. COAST GUARD TRAINING REQUIREMENTS FOR CARGO HANDLING AND BRIDGE MANAGEMENT.

AUTOMATIC PILOT. ALARM SYSTEMS FOR AUTOMATIC PILOTS SHOULD BE RETROFITTED ON ALL TANKERS.

SHIPBOARD OIL SPILL RESPONSE CAPABILITY. SHIP SPECIFIC OIL SPILL PREVENTION AND CONTROL CONTINGENCY PLANS SHOULD BE REQUIRED, BUT PRESENTLY EXISTING SHIPBOARD OIL SPILL RESPONSE EQUIPMENT IS NOT EFFECTIVE AND WOULD PRESENT SAFETY HAZARDS IN ITS DEPLOYMENT. RESEARCH IS RECOMMENDED TO INVESTIGATE FEASIBLE AND SAFE TECHNIQUES FOR ONBOARD RESPONSE.

VESSEL CONFIGURATION. THE MERITS OF FULL APPLICATION OF BALLAST SIDES, REDUCED TANK SIZE AND DOUBLE BOTTOM CONSTRUCTION SHOULD BE CAREFULLY STUDIED BY THE NATIONAL ACADEMY OF SCIENCES (OR ANOTHER INDEPENDENT BODY) WITH INDUSTRY INVOLVEMENT.

VESSEL SIZE. LIMITING THE SIZE OF VESSELS AT UNITED STATES PORTS WILL NOT ENHANCE ENVIRONMENTAL SAFETY BECAUSE OF THE ADVERSE IMPACT DOWNSIZING WOULD HAVE ON TANKER TRAFFIC.

3. RESEARCH: API RECOMMENDS AN OVERALL PROGRAM OF $30 MILLION TO $35 MILLION OVER FIVE YEARS. A PRELIMINARY ASSESSMENT OF THE RESEARCH AND DEVELOPMENT OPPORTUNITIES RELATED TO OIL SPILLS IDENTIFIED SPAN THE SPECTRUM FROM SCIENCE (E.G., BETTER UNDERSTANDING THE CHEMISTRY AND BIOLOGICAL EFFECTS OF SPILLED OIL ON THE ENVIRONMENT) TO OPERATIONS (E.G., USE OF CONTAINMENT BOOMS IN HIGH SEAS). THE THRUST OF THE PROGRAM PROPOSED IS TO INITIATE WORK FIRST IN THOSE AREAS WHERE THE ASSESSMENT SUGGESTS THE GREATEST POTENTIAL BENEFITS.

SINCE THE BULK OF THE PROPOSED R&D PROGRAMS HAVE OPERATIONAL OBJECTIVES, THEY WILL BE MANAGED BY THE PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO). SOME FURTHER DISCUSSION AMONG PIRO, API AND THE U.S. DEPARTMENT OF THE INTERIOR WILL LIKELY BE NEEDED TO FINE TUNE THE R&D MANAGEMENT RESPONSIBILITIES TO AVOID DUPLICATION, GAPS OR INEFFICIENCIES.

IN CONCLUSION, THE INDUSTRY BELIEVES THAT THE API OIL SPILL TASK FORCE'S INITIATIVES WILL HELP PREPARE THIS NATION TO BETTER HANDLE OIL SPILLS IN A SWIFT AND EFFECTIVE MANNER.

THANK YOU. I AM PREPARED TO RESPOND TO ANY QUESTIONS YOU MAY HAVE.

Testimony of

JAMES T. LEIGH

MANAGER

on Behalf of the

DELAWARE BAY & RIVER COOPERATIVE

on

the PRESIDENTE RIVERA oil spill in the Delaware River

before the

Subcommittee on Oversight and Investigations

of the

House Committee on Merchant Marine and Fisheries

Philadelphia, PA
July 17, 1989

Mr. Chairman, my name is James T. Leigh. I am the Manager of the Delaware Bay & River Cooperative. I am accompanied today by Mr. Millard French, Operations Manager at Chevron's refinery in Philadelphia and Chairman of the Cooperative, Captain David Chalson, Philadelphia Area Supervisor for Atlantic Pipeline Corporation, and Vice-Chairman of the Cooperative, Mr. Richard Soehlke, Refinery Manager at Star Enterprise's refinery in Delaware City, and Treasurer of the Cooperative, and, Mr. Malcolm Flint, Refinery Manager of Sun's Marcus Hook refinery, and Sun's Representative to the Cooperative. We are all here representing the Delaware Bay & River Cooperative, a voluntary non-profit organization formed in 1979, with fifteen member companies from the petroleum transportation, refining, marketing, and consuming industries operating in the Delaware Valley. The Cooperative has purchased and maintains oil recovery vessels, booms and boom trailers, boats, and an area wide communication system with a current value in excess of five million dollars, ($5,000.000). This includes the DELBAY, a 68 foot, self sufficient oil recovery vessel, capable of removing 500 gallons per minute of oil from the water surface. Members contribute an annual operating budget of about four hundred fifty thousand dollars ($450,000). In addition a wide array of member owned equipment is made available through the Cooperative.

The Cooperative makes this equipment, member company employees, and selected contractors available to rapidly carry out first response actions for members, anywhere in the Delaware Bay and Delaware River to Philadelphia. The Cooperative does not serve as a cleanup contractor for non-members, but by agreement with the Coast Guard we will make our people and equipment available at Coast Guard request.

Additional information on the Cooperative is provided later in this document.

As you have seen and heard in the past, and again here today, oil spills are difficult to deal with under any circumstances. The PRESIDENTE RIVERA spill has illustrated the particular difficulty in dealing with a large spill in a tidal river environment. The close proximity of sensitive shoreline areas, the continuously changing current conditions, including the complete reversal in current direction, the dramatic influence that the wind can have on the movement of spilled oil, and the mutual interference that oil spill response efforts and normal business and pleasure uses of the river create are only a few examples of these difficulties. The PRESIDENTE RIVERA spill is also a good example of the enormous effort mounted to respond to these incidents.

From the outset Captain Murdock, the U.S. Coast Guard predesignated On-Scene-Coordinator, oversaw the management of this response effort. He sought people and equipment from a wide array of private, local, state and federal organizations and agencies, including our Cooperative. Support from our Cooperative was requested in the first hour of the spill and we continued to provide assistance until the PRESIDENTE RIVERA passed under the

Delaware Memorial Bridge on her was out of the river on Sunday, July 9, some 15 days after the spill occurred, at which time we were released by the Coast Guard.

Let me review the Cooperative's support for you.

I received a call from Captain Murdock's office at 0525 Saturday morning, June 24, 1989, only 39 minutes after the reported grounding of the PRESIDENTE RIVERA. It was requested that I contact a member company, Sun Refining & Marketing Co., and have them activate the Cooperative. After obtaining preliminary information on the spill from the caller, I immediately called Sun and relayed the request.

Immediately following my call to Sun, I received a call from the Coast Guard, requesting that the Cooperative boom several tributary streams in the immediate proximity of the spill location. The Coast Guard also requested the deployment of the motor vessel ASTON SUN with the TRANS-VAC oil recovery system to begin oil recovery operations. (This vessel and recovery system is maintained at Sun's Marcus Hook, Pa. refinery.) I began a series of calls to initiate booming of the tributaries, to obtain and relay information on the extent and nature of the oil spill, and to obtain and relay weather and tide conditions.

I received word from Sun that Cooperative boom was in the water at 0715, enroute to the ship. At 0730, activation of the DELBAY, which the Cooperative maintains in Lewes, Delaware, was requested by the Coast Guard. The DELBAY was underway at 0930. She reached the Christina River vicinity at about 4 pm where she first encountered oil and immediately began oil skimming operations. The oil was in semi-solids clumps. The DELBAY removed these clumps from the water readily, however, they were too thick to be pumped by the DELBAY's oil transfer system. As a result, the DELBAY continued to remove oil clumps from the river until she was full and she then proceeded to a dock to unload. She continued operating in this fashion on an around the clock basis, with two crews of three people, each working 12 hours on and 12 hours off, until all the free floating oil had been removed from the river. This phase of the effort extended through Friday, June 30, 1989. During this time other oil removal efforts (not involving the Cooperative) ranged from several crews (provided by the cleanup contractor) in small boats manually picking up the clumps and placing them in plastic bags, to the use of three Coast Guard open ocean booms to gather up the oil clumps which were then lifted out of the water by clam shell bucket cranes and placed in hopper barges.

Returning to the events of the first morning, at 0935 I was informed of a Multi-Agency Local Response Team (MALRT) meeting to be held at the Coast Guard offices in Philadelphia at 11:00 am. After receiving a few additional calls, I departed my home in Dover, Delaware and proceeded to the Coast Guard offices. At the request of the Coast Guard I worked with the other members of MALRT in getting boom deployed at additional locations which were more distant from the spill site as a precautionary measure.

From my arrival until Monday evening I worked continuously with Captain Murdock, members of his immediate staff, members of the Coast Guard Strike Team, state representatives, many federal agency representatives, and the prime spill cleanup contractor in identifying and providing additional people and equipment needed in the cleanup effort.

At the request of the Coast Guard, the Cooperative provided additional boats and operators including three boats moved down Saturday night from Clean Harbors, the industry sponsored cooperative in New York. Reliable and timely communications became a problem as the size and geographical distribution of the work force grew. The Cooperative arranged with Mobil, a member company, to provide a communications system and experts to get the system installed and operating. There was a high level of news media interest in the spill and in the response activities. Another member, Maritrans, provided a large tug which served as a press platform for some 31 media personnel on Wednesday, June 28, 1989, again at the request of the Coast Guard. Several member companies cooperated fully with the Coast Guard in providing tugs and barges for use in unloading the tanker and in receiving the unloaded cargo ashore. Throughout the incident Sun Refining & Marketing provided office and dock space and services to facilitate the cleanup operation. They also agreed to take the damaged tanker alongside at one of their docks while cargo unloading operations continued after the vessel was refloated early on Sunday morning, less than 24 hours after the grounding. They did all this at considerable disruption and interference with their own business activities, despite the fact that neither the cargo nor the ship belonged to Sun.

In all of my contacts with member company personnel throughout this incident, a willingness to assist was the always present attitude.

There are lessons to be learned in every spill. The semi-solid nature of the No. 6 fuel oil in the water was a major factor in slowing oil removal operations afloat. Because of her highly effective and versatile oil recovery system, the Dynamic Inclined Plane (DIP), the DELBAY was able to remove the oil clumps floating on or near the water surface, but since she had to offload the oil at dockside using a high capacity VACTOR truck, her overall oil recovery rate was significantly lower than her maximum capacity. The TRANS VAC oil recovery vacuum system aboard the ASTON SUN was only effective in situations when the oil was in a liquid state or in smaller clumps which could be picked up with water. The clam shell bucket cranes and hopper barges used with the Coast Guard open ocean boom were resources routinely available in the Delaware Valley. There has been some commercial development of netting systems and pumping systems capable of handling semi-solids for oil spill recovery purposes. The Cooperative has included the semi-solid; pumping/skimming systems in their ongoing Contingency Planning review process and will continue to examine the relative need for such systems. High capacity, highly mobile systems for control and removal of oils of this nature are appropriate topics for continued research and development.

There was an adequate supply of boom available to meet all practical needs. While there was shoreline impact of oil, no quantity of boom would have prevented all such impact. Booms were effective in some areas, but in some instances we reportedly had booms broken by high current and by the boating public. Installing boom to effectively protect an area, in a tidal environment with ever changing current velocities and current directions is a demanding task. We do, however, understand how to use boom and we will continue to conduct training with cooperative member employees, contractors, U.S. Coast Guard, and state personnel, as we have in the past, on the proper deployment of booms, and the maintenance of the boom after it is deployed.

In this particular spill there was excellent intergovernmental and private sector coordination of the cleanup effort due to the continuing close oversight of the On-Scene-Coordinator, Captain Murdock, and the stated willingness of the foreign vessel owner to take all appropriate cleanup actions. The latter situation does not always exist. The membership of this Cooperative believes that an expanded Coast Guard role in the management of major oil spills in the Delaware River and Delaware Bay and elsewhere is appropriate.

The Cooperative is of course familiar with the Petroleum Industry Response Organization proposed by API, and with the spill prevention, spill response, and research and development programs included, as outlined for you by Captain Bates today. We certainly endorse that program and look forward to its implementation. We quantity of boom would have prevented all such impact. Booms were effective in some areas, but in some instances we reportedly had booms broken by high current and by the boating public. Installing boom to effectively protect an area, in a tidal environment with ever changing current velocities and current directions is a demanding task. We do, however, understand how to use boom and we will continue to conduct training with cooperative member employees, contractors, U.S. Coast Guard, and state personnel, as we have in the past, on the proper deployment of booms, and the maintenance of the boom after it is deployed.

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The Cooperative is of course familiar with the Petroleum Industry Response Organization proposed by API, and with the spill prevention, spill response, and research and development programs included, as outlined for you by Captain Bates today. We certainly endorse that program and look forward to its implementation. We believe it compliments the ongoing commitment of the Delaware Bay and River Cooperative in the Delaware Valley quite well.

believe it compliments the ongoing commitment of the Delaware Bay and River Cooperative in the Delaware Valley quite well.

I would like now to return to the discussion of the Cooperative itself, to provide you with additional details.

The Cooperative's current members are: Amoco Oil Company, Atlantic Refining & Marketing Corp., BP Oil Company, Chevron, U.S.A., Inc., Coastal Eagle Point Oil Company, Delmarva Power, E.I. DuPont de Nemours & Company, Exxon, U.S.A., Mantua Oil Company L.P., Mobil Oil Corp., Philadelphia Electric Company, Public Service Electric & Gas Company, Maritrans G.P. Inc., Sun Refining & Marketing Company, and Texaco Inc. The scope of Cooperative activities is illustrated in the "Job Duties" assigned to the Manager, as indicated by attachment 1 to this testimony.

From the outset, the Cooperative has worked closely with the Coast Guard and other federal and state agencies in planning for spill response. Together, we have identified some 14 priority sites for booming protection in the event of a large spill. These sites were reviewed and refined as recently as two years ago and at that time a major new contingency planning project was initiated to establish priorities for protection in the lower Delaware River and Delaware Bay. The first product of that project - seasonal environmental sensitivity maps produced by NOAA have just been received. These maps and more detailed reference materials have already been reviewed by a Cooperative task force for the purpose of determining the need for additional response equipment, and the most appropriate staging sites for such equipment. When we nave completed our study of these requirements we will review our findings with the Coast Guard and the states. The PRESIDENTE RIVERA spill and the response effort, both the successes and the problem areas, will certainly be included in our overall review.

In 1988 the Cooperative conducted two major hands on training events in the water - one in the Bay and one in the upper river area. This has been the practice of the Cooperative for many years. The Bay exercise included the demonstration of a boat mounted dispersant spray system, simulated oil skimming by the DELBAY operating independently, simulated oil skimming by the DELBAY, assisted by two Coast Guard patrol boats towing a "Vee boom" configuration made up to the bow of the DELBAY, and the simulated skimming of oil from a "leaking tanker" utilizing boom rigged down both sides of the tanker to direct the "oil" into the DELBAY which was made up to the stern of the ship. In addition to providing the towing vessels as discussed above, the Coast Guard placed two officers aboard the DELBAY at the invitation of the Cooperative - two member companies also placed observers on the DELBAY incidentally.

The motor vessel ASTON SUN and TRANS-VAC oil recovery system mentioned earlier were added to the Cooperative response inventory in 1987 as a result of our on going equipment review. The Cooperative purchased the skid mounted TRANS-VAC vacuum oil recovery system, and Sun totally refurbished the landing craft ASTON SUN to serve as the support platform for the system. This unit is also capable of recovering 500 gallons per minute of oil from the water surface. After several hands on training sessions with this equipment, it was called into action at the 1988 up-river Cooperative exercise. In this exercise a vessel leak at a member's dock was simulated by the use of firefighting foam. The vessel was boomed by the member company, Mobil, and additional boom was deployed at a location some distance away to capture oil which escaped from the primary operation. The ASTON SUN was brought to the boomed vessel for oil recovery operations. The Coast Guard Captain of the Port and several members of his staff observed the exercise and participated in the critique and debriefing held immediately after the exercise, as is our custom.

In addition to these Cooperative sponsored training exercises, individual member companies conduct boom deployment exercises, as well as major oil spill management exercises.

In the last nine months, the Cooperative has conducted three classroom training sessions on all aspects of spill management, with invited speakers from the Coast Guard, the State of Delaware, Tri-State Bird Rescue and Research, Inc. and other organizations participating in two of these sessions. Attachments 2 and 3 are the agendum from these two sessions.

The Cooperative takes great pride in the material readiness of our equipment. The DELBAY has a full time Port Engineer assigned. Each week the vessel is taken out and all of her systems are exercised. On June 14, 1989 two auditors from the U.S. General Accounting Office visited the Cooperative and witnessed the weekly DELBAY exercise. We have always extended an open invitation to appropriate government officials to do the same. The ASTON SUN and TRANS VAC system are included in the regular preventative maintenance program of Sun Transport personnel at the Marcus Hook refinery.

I would like to close my remarks by commenting on our respect and appreciation for the dedicated members of the Tri-State Bird Rescue and Research, Inc. Mrs. Lynne Frink, her professional staff, and her untiring volunteers are key members of the Delaware Valley response community. Tri-State has a richly deserved international reputation as a leader in wildlife rehabilitation. The Cooperative is proud to have supported the establishment and ongoing growth of Tri-State. I'm sure you will find their testimony interesting and valuable.

The Cooperative thanks you for the opportunity to present our views. All members of our delegation are prepared to respond to any questions you may have.

Attachment 1 to T. Leigh Testimony, July 17, 1989, Philadelphia, Pa. Pages 1-3

EXHIBIT B

MANAGER - DELAWARE BAY COOPERATIVE

Background

Established formally in 1975, the Delaware Bay Cooperative is designed to provide effective action in the event of spillage, and to preserve the integrity of the surrounding environment. Second only to New York Harbor, the covered area handles 350 million barrels of crude oil each year. The Bay is surrounded by beaches, marinas, wildlife areas, wetlands, resorts, fishing and shellfish areas. A key to the success of this venture is the Manager who, through his personal activities and initiative, assures the Cooperative is achieving the goals of the organization as stated in the DBRC Mission (attached).

Organization

Consisting of eight founding companies, the Delaware Bay is headed by a committee of representatives. An elected three-person executive committee is responsible for overall management. The Manager, an independent contractor, reports to the Executive Committee, which can delegate authority and duties at its discretion. There are also subcommittees in the functions of Finance, Legal, Operations, Public Affairs, and Tax.

Job Duties

1. Maintain and review procedures and equipment designed to minimize the possibility of damage from oil spills and other forms of pollution.

2. Develop a positive working relationship with regulatory agencies, government or private organizations dedicated to spill-related concerns.

3. Utilize the data from educational and other organizations to compile forecasts of spill probabilities, tidal directions and other information directed at spill prevention and control.

4. Review and evaluate new developments and procedures in oil-spill containment and clean-up technology.

5. Purchase and maintain efficient containment and recovery equipment, communication systems and related items.

6. Develop and update a contingency plan which will assign responsibility and authority to specific individuals in the event of a spill. Carry out personal duties as defined in the plan.

7. Evaluate oil-spill contractors to maintain a current list of acceptable contractors.

8. Conduct the business of the cooperative in a manner which will reflect favorably on the industry.

9. Develop and justify an annual budget for membership review and approval.

10. Develop and implement training programs for all members, advisors and contracted organizations, including:

    a. Talks, pictures and movies on oil-spill prevention and control.

    b. Sea trials and "learn by doing" cleanup operations on the water.

    c. Mail out material on oil-spill prevention, control, potential new equipment, etc.

11. After use, contract and supervise the cleanup, maintenance, repair and storage of all equipment.

12. Develop reports of significant events and advise the member companies of these on regular intervals.

13. Become familiar with Delaware Bay and River and its tributaries regarding the major commercial facilities and ecologically-sensitive areas.

14. Establish a plan for regular and special communications and meetings with the member companies.

15. Review member company response plans and make recommendation for revisions when the need is indicated.

16. Proactively raise issues to representatives and/or members regarding any pertinent concerns, such as contingency planning, environmental protection, equipment, government relations, etc.

17. Ensure that members understand and execute their call-out roles.

18. Review booming sites with members for access, booming patters, mooring pins, etc.

19. Recommend and coordinate simulated spill exercises on a regular basis.

20. Actively participate in Public Relations efforts in support on DBRC goals.

21. Monitor the contract operator to ensure adequate performance, response time and expense control.

22. Develop a list of related consultants (e.g. environmentalists, bird cleaners, etc.).

23. Develop long-range response needs on a 3 and 7 year planning basis in a timely manner to allow member companies to plan for expansion needs.

24. Arrange for storage and maintenance of equipment and materials not stored at member company facilities.

25. Arrange for necessary insurance on assets.

26. In the event of a spill, the Manager may be called upon to act in any capacity ranging from "on-scene commander" to a part time advisor, or be circumvented entirely.

27. Any other duties which may, from time to time, be requested by the Executive Committee.

Attachment 2 to T. Leigh Testimony, July 17, 1989, Philadelphia, Pa. Page 1

DELAWARE BAY & RIVER COOPERATIVE

OIL SPILL RESPONSE WORKSHOP
November 17, 1988
Lewes, Delaware

645-4100

Agenda

0800 - 0830	Registration, Coffee & Danish
0830 - 0845	Introduction - Ted Leigh, Manager, DBRC
0845 - 0915	The Roles of the Cooperative and Individual Members - Les Lakie, Assistant Treasurer, DBRC
0915 - 1000	The Roles of the Coast Guard, MALRT, RRT, and NRT - Lt. L. J. Corcoran, USCG, Marine Safety Office, Philadelphia, Pa.
1000 - 1015	Coffee Break
1015 - 1100	The Roles of Delaware - John Mohrman, Supervisor, Emergency Response Team, State of Delaware, and Bennett Anderson, Environmental Scientist, Wetlands Section, State of Delaware
1100 - 1200	The DELBAY - George Hunsicker, Port Engineer
1200 - 1300	Lunch
1300 - 1330	Cooperative Equipment Overview - Les Lakie
1330 - 1400	The ASTON-SUN/TRANS-VAC System - Tom Crawford, Operations Subcommittee, DBRC
1400 - 1430	Booms - Ted Leigh, Operations Subcommittee, DBRC
1430 - 1530	Dispersants - Dr. Al Lasday, Senior Coordinator, Environmental Affairs, Texaco Inc.
1530 - 1545	Break
1545 - 1615	Tri-State Bird Rescue and Research, Inc. Susan Checcio, Clinic Supervisor of Operations
1615 - 1640	Contractor and other Resources - Ted Leigh
1640 - 1650	Safety - Tom Crawford

Attachment 3 to T. Leigh Testimony, July 17, 1989, Philadelphia, Pa., Page 1 - 2

DBRC DELAWARE BAY & RIVER COOPERATIVE

OIL SPILL RESPONSE WORKSHOP
MAY 11 and 12, 1989
VIRDEN CENTER
UNIVERSITY OF DELAWARE, MARINE STUDIES CAMPUS
LEWES, DELAWARE

THURSDAY, MAY 11, 1989 AGENDA

0930 - 1000	Registration, Coffee, Danish, and Juices
1000 - 1015	Group Introduction
1015 - 1045	The Roles of the Cooperative and Individual Members - Ted Leigh, Manager, DBRC
1045 - 1200	The Roles of the Coast Guard, MALRT, RRT, NRT SSC, and NSF - Lt. Peter Jensen, USCG, Marine Safety Office, Philadelphia, PA.
1200 - 1245	Coop Hosted Lunch - Virden Center
1245 - 1315	Cooperative Equipment Overview - Captain Einar Groething, BP Oil (DBRC Operations Subcommittee)
1315 - 1345	Contractors and other Resources - Ted Leigh, Manager, DBRC
1345 - 1400	Break
1400 - 1630	Panel - Respond to the January 26, 1989 Oil Spill on the Christina River - Chaired by Dave Buchanan, Maritrans. Panelist Representing:

Texaco Marine
Dave Convey

Wilmington Fire Dept.
Chief John Mulhern

Guardian Envir.
Bob Caron

Underwater Technics
David Stith

USCG
Lt. Peter Jensen

BP Oil
Capt. Einar Groething

The Cooperative
Tom Crawford
Ted Leigh

AGENDA

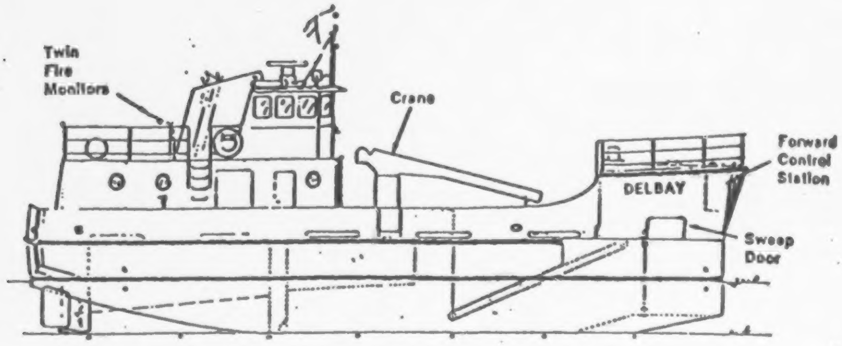
FRIDAY, MAY 12, 1989

0800 -	Coffee, Danish, & Juices
0830 - 0900	Booms - Don Wall, Sun (DBRC Operations Subcommittee)
0900 - 0920	The DELBAY - George Hunsicker, Port Engineer, Maritrans
0920 - 1000	The ASTON SUN/TRANS VAC System - Tom Crawford, Sun (DBRC Operations Subcommittee)
1000 - 1015	Break
1015 - 1100	Dispersants - Leon Kazmierczak, Sun
1100 - 1130	Tri-State Bird Rescue & Research, Inc. Lynne Frink, President
1130 - 1200	The Roles of Delaware - John Mohrman, Supervisor, Emergency Response Team, State of Delaware.
1200 - 1245	Cooperative Hosted Lunch - Virden Center
1245 - 1430	Waterfront Activities Delbay Dispersants Boom Adapts Pumping System Radio System
1430 - 1500	Wrap Up - Dave Buchanan, Chairman Operations Subcommittee

Attachment 4 to T. Leigh Testimony, July 17, 1989, Philadelphia, Pa., Page 1

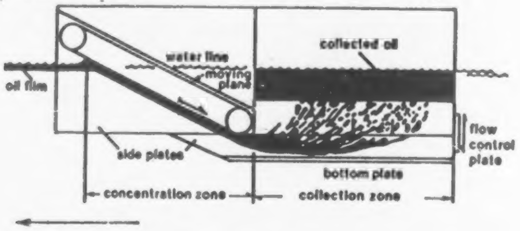
THE DELAWARE BAY COOPERATIVE OIL SPILL RECOVERY VESSEL

JBF® DIP® 5001



VESSEL CHARACTERISTICS

Hull	Steel
Displacement (Fully Loaded)	100LT
Length Overall	68'
Beam, Molded	17'
Draft, Ready for Sea	5'
Horsepower, Total (2-250 HP Screws)	500
Cargo Capacity	10,000 gal.
Recovery Rate	500 gpm
Speed	9 knots
Fuel Consumption	24 gph
Fuel Capacity	1,000 gal.
2 Fire Monitors (Pump Capacity)	250 gpm



The Dynamic Inclined Plane (DIP) Recovery System collects oil by forcing it under the surface of the water where it follows the moving inclined plane to a collection well. The oil and water separate naturally and oil is pumped from the top of the well to storage.

TESTIMONY BEFORE THE HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES

RESPONDING TO OIL SPILLS WHICH AFFECT WILDLIFE

Lynne Frink, Tri-State Bird Rescue & Research, Inc.
Post Office Box 289 Wilmington, Delaware 19899.
July 24, 1989

Please note high-lighted areas for a brief overview of important comments.

INTRODUCTION

Oil has long been demonstrated to have a negative effect on birds, both as a result of contamination from chronic oil pollution and from major oil spills incidents on oceans and waterways around the world (Michael, 1977). Over one million birds die annually just in the European North Atlantic as a result of oil spills; the extent of worldwide mortality is not known (Croxall, 1979).

A major concern is that the ocean-dwelling birds most commonly affected by oil are not prolific breeders and their populations are not easily monitored in the wild.

There is a history of decades of frustrated efforts to rehabilitate oiled birds. Citizens of the United States, in particular, are a people conditioned to respond to crisis situations. In major oil spills, the average citizen insists that he/she be allowed to initiate an oiled bird rescue - a strategically and medically complex operation about which, unfortunately he/she has no technical knowledge.

The Delaware River is the second largest oil-importing waterway in the United States. Tri-State Bird Rescue and Research was founded in 1977, following five major oil spills in the mid-Atlantic area in a 30 month period, where tens of thousands of birds may have died. We focussed on studying the effects of oil on birds and devising treatment protocols. Our approached was a multi-disciplinary one, incorporating the expertise and professional backgrounds of research chemists, veterinarians, pathologists, engineers, and biologists with the federal and state wildlife agencies.

Tri-State has rehabilitated thousands of oiled birds, over over 28 species, ranging from the Eastern Bluebird to the Bald Eagle. Our release rates, to our knowledge, are the highest in the world. Release rates vary with species, type of oil, and, most importantly, the speed of retrieval of the affected birds. We have returned over 90% of our Anseriformes (Canada Geese, Snow Geese, Black Ducks, Mallards) to the wild; 73% of our rehabilitated diving ducks (Ruddy Ducks, grebes) have been released, while our release rates with Gaviiformes (loons) remains just under 50%, despite our utmost effort.

There are only 2 active oiled bird response agencies in the United States: Tri-State Bird Rescue & Research on the East Coast, and International Bird Rescue on the West Coast. The climate, types of oil and species of birds on the two coasts differ enough that each organization has refined the basic treatment protocols to suit their geographic areas.

When Tri-State Bird Rescue & Research (TSBR) was founded we initiated periodic literature searches and uncovered scores of disastrous efforts to rehabilitate oiled birds. There was the "dusty penguin" method, where Jackass penguins were rolled in Fuller's Earth, left to sit for days, then rubbed with detergent (Edwards, 1963). Rolling in cornmeal or sawdust, or dipping in liquid paraffin or hot butter, rubbing with lard, and continued testimonials for cooking oil, which we call the "Mazola Duck" treatment, have all been tried with varying claims of success but no available documentation to support the claims.

Oiled bird rehabilitation is difficult; it is a time-consuming, urgent, laborious job, requiring special materials and procedures. Nevertheless, the general public demands that these birds be cared for. If oiled birds are to be rehabilitated, the effort should be not a token attempt but a responsible undertaking effort which incorporates all the information we now have about successfully rehabilitating oiled birds.

And oiled bird rehabilitation has been successfully carried out, time after time, with a number of species and dealing with a variety of oils. The secrets to rehabilitating an oiled bird are simple: 1) Allow only experienced, licensed people to establish wildlife responses. 2) Treat both the internal and external effects of oil on birds. 3) Learn the special techniques needed work under major oil spill crises.

Birds generally become oiled in large numbers following a major oil spill; the magnitude of the problem is not a linear function, and it is often complicated by media pressure, lack of inter-agency preplanning and a well-intentioned but obstructive public.

THE EFFECTS OF OIL ON BIRDS

The external effects of oil are the most noticeable and most immediately debilitating. Oil destroys the waterproofing and insulating properties of plumage. The bird may suffer from chilling; it is often unable to fly or remain afloat in the water. The bird has difficulty obtaining food or escaping predators. In addition to the decreased foraging ability of the animal, the presence of oil in the environment usually results in a loss of available food. It is these external effects of oil on birds which are most often seen by the general public, and treatment efforts are concentrated on these external effects.

The internal effects of oil, while not as apparent, are equally life-threatening. Direct toxic effects on the gastrointestinal tract, pancreas and liver have all been documented (Leighton, 1983). Ingestion of oil by birds attempting to clean feathers frequently results in ulceration and hemorrhaging in the gastrointestinal tract with a severe loss of digestive and absorptive ability. This same irritation and ulceration is found on the mucosal surfaces of the eyes.

Oil aspiration pneumonia is not uncommon in oiled birds. Severe and fatal kidney damage has been documented (Langenberg 1983). The weakened bird becomes susceptible to secondary infections, both bacterial and fungal. It is these internal effects of oil which are not taken into account by most people who engage in oiled bird rehabilitation.

TREATMENT OF OILED BIRDS

Stabilizing the Bird

Efforts should be made to stabilize the bird by treating the internal effects of the oil. In addition to the complete standard physical examination. Each bird should receive a temporary, numbered plastic leg band and individual records should be kept on each animal. Weight and cloacal temperature should be recorded. Oil is removed from the mouth and the nares. The vent is checked for oil and matted feathers causing impaction. The eyes are flushed with a sterile saline solution or opthalmic irrigation. If possible, blood should be taken at this time to check packed cell volume and total solids.

A number of oiled birds are dehydrated as a result of enteritis. Dehydration is a serious condition: not merely a matter of being thirsty. Lack of necessary body fluids results in such life-threatening conditions as a reduction in circulating blood volume. For a severely dehydrated bird, intravenous fluids are a necessity. The gut will be too damaged to take up orally ingested fluids. For less injured birds, tube-feeding the bird with a warm electrolyte solution (Lactated Ringers & 2.5% Dextrose, Normosol, etc.) serves to rehydrate the bird while flushing the oil from the gut. An enteric coating agent is then also administered orally by tube. Nutrients are later be to the tubing solution, and tube-feeding is repeated every 4-6 hours until the bird is permitted free access to food and water after cleaning.

The bird is kept warm and quiet, away from people and other stressors. The bird should not be washed until it is alert, responsive, and restored to normal fluid balance. Efforts should be made to stabilize the bird and wash it within 8-24 hours Highly refined oils can be absorbed through the skin, intensifying internal problems.

Removing Oil From the Feathers

Oil must be removed from the feathers without damaging the delicate feather structure. Oiled birds should not be washed unless large amounts of hot water are available. Eighty to one hundred gallons of 103-105 degree Fahrenheit water are needed over a 20 minute period to wash one duck. This type of water can only be assured through a series of hot water heaters or steam generator. The water must be above 102 degrees Fahrenheit in order to lift the oil. Anyone who has tried to wash a greasy frying pan in cold water will understand this.

Numerous cleaning agents have been tested for their ability to remove oil from feathers (Bryndza, 1987 Smith, 1973). Only a few of them meet the criteria. Washing takes place in a series 10 gallon tubs filled with a 2 - 10% solution of detergent. The detergent solution is gently poured over the contaminated bird. The bird should be removed from the cleaning tub when the water gets dirty. The entire washing process is then repeated. An oiled bird may require three or more tub washings. There are special procedures for heavily weathered or tarry oils such as those encountered in the recent Delaware oil spill.

The feathers must be completely rinsed if the bird is to be rehabilitated. Any detergent residue can impede waterproofing. Rinsing is carried out with a combination of spray rinses and tubs of clean water at 103-105 degrees. The bird is not acceptably rinsed until diamond-like beads of water roll freely from the feathers. This is the one sign of a successfully cleaned oiled bird, and once you see it, you will recognize it as the end point in every oiled bird cleaning effort. Failure to rinse the bird adequately is probably the most common cause of unsuccessful rehabilitation efforts.

The newly washed bird is placed in a clean holding pen to dry. The pen should be lined with sheets or towels, curtained to minimize human intrusion, and provided with heat lamps to allow the bird to find a comfortable ambient temperature. We find that birds don't respond well to forced hot air from driers and prefer the ambient warm air of heat lamps, immediately beginning to preen their feathers back into alignment. For diving birds which are totally unable to walk on dry land (e.g., Common Loons), we need to provide as much as 3" of foam padding under the sheeting to prevent breast abrasions and open sores. Free access to water and a variety of foods can now be provided. The birds are checked to see which ones are self-feeding. Droppings are monitored for blood and oil, and those birds are treated for enteritis with more easily absorbed tubed nutrients.

After 24 hours, the birds are allowed to swim. They need large amounts of water for this so that they can actually swim and preen. Waterbirds usually take to water readily; when they begin to get wet, they leave the water to preen. As the bird continues its efforts to swim, then preen, it realigns its feathers and restores original feather structure. This alignment of the feathers is what insures the bird's water-proofing. The feather structure does not require, but is further enhanced by, the application of oil from the bird's own uropygial gland; this natural oil seems to assist in maintaining the feather structure, much as hair spray might hold a hairstyle.

Birds which are waterproof will demonstrate diamond beading of water on their feathers which was mentioned earlier. They will also be able to remain in the water, depending on species, anywhere from 10 to 50 minutes without getting wet.

Acclimate for Release

A bird which is waterproof should slowly be exposed to temperatures comparable to outside weather. This, of course, is critical in cold winter months. A rehabilitated oiled bird should be of average weight for its species and sex. It should be adequately muscled so that it can forage normally in the wild. The bird should not show signs of disease. Birds should be banded with Fish & Wildlife Service bands and released early in the day in proper habitat.

MAJOR OIL SPILL CRISES

Special Problems in Major Oil Spill Responses

1. EXPERIENCED STAFF. Rehabilitators and veterinarians inexperienced in oil spill response - even if they have read response accounts in the literature - will not be able to successfully stage a major response - they will simply be unprepared for the catastrophic nature of the event and unpracticed in the techniques. The intense human labor, the immediacy of the effort, and the need for special equipment (water, detergent, pools, etc.) can make the job seem an Herculean task. A spill involving fifty, one hundred or more birds taxes the resources of even those of us who like to think we are always prepared for oil spills. Organization and pre-planning are the key factors to an major oiled bird rehabilitation effort.

2. WATER. In a 100 bird spill, 3 wash lines should be set up, requiring 400 gallons of clean water, under pressure at 104 degrees F. gallon / hour. (Note that even at the end of a twelve hour day only one third of the birds would have been cleaned.) City water systems and hot water heaters (even multiple ones) are unequal to this demand.)

3. WASTE WATER DISPOSAL. To avoid contamination of sewer systems with oil and to avoid suds billowing out of neighborhood sewage.

4. MAINTAINING PROTOCOL. We have been rehabilitating oiled birds for thirteen years; we have successfully treated 28 species of oiled birds, ranging from Bluebirds, through Owls, Swans and Loons. Yet we still know of only one successful way to deal with oiled birds. Some article published in 1948, suggesting plucking the bird, may be read by an earnest citizen and become a dogma etched forever in stone. During a major oil spill, someone will always show up at the facility with a new wonder method, a miracle soap, letters of testimonial for his/her pet theory. And in desperation and under the pressure of the moment these people are often, tragically, allowed to determine treatment protocol.

Our attached publications enumerate certain steps that can be taken to ensure a more smoothly running rehabilitation effort; most of these steps should take place before any oil spill occurs.

Allowing untrained, unsupervised people try to rehabilitate severely oiled wild birds is equivalent to allowing your neighbor to do an emergency appendectomy on your son or daughter. Oiled bird rehabilitation is a medical response, and needs to be treated as such.

4. ORGANIZATION OF LARGE NUMBERS OF STAFF/VOLUNTEERS. Tri-State maintains a corps of volunteers - laypersons and professionals - who have been trained in advance of an oil spill and are assigned very specific jobs during a spill. Protocols should be posted. All people should sign in / out of a Center. Visitors should not be admitted. The press should be restricted to certain times of day and required to read the most recent press release before entry.

PRESIDENTE RIVERA SPILL

What distinguishes this spill from the others that have occurred in recent years:

1. The press, public and government have been extremely sensitized to oil spills in the last 7 months. We received requests for continual updates from government agents we had not heard from in a decade.

2. The oil was (as has been stated elsewhere) an unusually difficult oil to boom, skim or otherwise contain.

3. The tarry-pitchy nature of the oil made it extremely difficult to remove from the contaminated birds.

4. The oil contained PAH's (Polycyclic aromatic hydrocarbons) which can have adverse (carcinogenic) (Leighton, 1983) consequences and should have demanded

> **more stringent safety precautions.**
>
> **This aspect of oil spill clean up seems to be little understood by the press, public or industries, and is often misrepresented in the press.**

Tri-State received 123 birds, 3 of which were dead on arrival. The most common species was Canada Goose adults and downy young. Many of the birds were oiled to the skin, with oil in the mouth, nares (nostrils) and cloacal (anal) areas. The oil was viscous and tarry, requiring numerous baths in very high concentrations of detergent. Of the 120 live birds, 116 are alive as of this writing; we anticipate being able to release 95% (114) of those birds back into the wild.

I have included for your files two additional papers in which Tri-State responded to oil spills involving wildlife: one discusses the Grand Eagle oil spill, which occurred Sunday, September 29, 1985, when 450,000 gallons of light crude oil spilled in the Delaware River. The other paper discusses the Ashland oil spill which occurred on New Year's Day, 1988, in Pittsburgh, Pennsylvania.

AGENCY INTERACTION

Government - Industry - and Private Organizations

When Tri-State first organized in 1977 the political and emotional climates surrounding oil spills were very intense - similar to what we have seen this summer following the Valdez oil spill.

Congressional investigations were held, state legislative inquiries, were initiated, environmental groups staged protests - rhetoric everywhere was plentiful and passionate. There were many immediate experts in the subject of oil spills. After a few months this interest in oil spills faded.

At Tri-State, however, we maintained our interest in and our commitment to wildlife fouled by oil. In this effort, we were supported by another group whose commitment did not disappear with the waning of publicity: the Delaware Bay and River Cooperative determined to prevent oil spills where possible and establish clean up measures when oil spills did occur. The Cooperative has continued that commitment for over a decade. They, like us, have remained on standby 24 hours a day, 365 days a year to respond to oil spill crises. They have supported our organization and have also invested manpower and expensive technical equipment and supplies in a ready-response to oil spills.

Tri-State Bird Rescue & Research, state and federal Fish and Wildlife agencies, area industries and the Coast Guard established a structured oil spill response protocol over a decade ago, and we have maintained a good working relationship ever since.

There can be, however, a lack of continuity in leadership. Too often, the leadership or administrative heads of agencies are new to the area or the job and don't have a clear understanding of the mechanics of oil spills responses. It seems to me that the position of Captain of the Port of Philadelphia is a baptism of fire in oil spill response for many of the men who have held that position since I began working in oil spills.

For the government agencies oil spill response can best be described as an added burden. In the day-to-day life of these agencies, oil spills are no one's main responsibility. The Coast Guard remains woefully underfunded in relation to the multitude of responsibilities assigned to it.

While the efforts of local federal and state Fish & Wildlife agents have been excellent, oil spill responses in other regions vary greatly due to the fact that the Department of Interior has yet to commit itself to a firm statement or policy in dealing with oiled birds. The government wildlife officials assigned to spills, like the Coast Guard do not have this response as their sole job. Federal Fish & Wildlife agents have refuges to run, state fish & wildlife personnel have a multitude of ongoing projects which they must balance with the demands of oil spill responses.

In fact, it is only the private agencies which take responsibility for oil spill response as their major function - the Delaware Bay & River Cooperative and Tri-State Bird Rescue & Research.

CONCLUSION

At Tri-State Bird Rescue & Research, we have, over the last 13 years, invested large sums of money and thousands of hours investigating the effects of oil on birds. We have studied the published papers and informal accounts of other rehabilitation efforts, and we have conducted carefully planned research on oiled birds and published our findings in numerous medical and scientific journals.

We find that most oiled birds can be rehabilitated successfully using the techniques covered briefly in this paper.

We also recognize that rehabilitating a single oiled bird is a simple procedure compared to responding to a major oil spill crisis, when oiled birds may come in in great numbers, media and public pressure is great, and governmental agencies and industry are trying to cope with dozens of on-scene problems ranging from explosion and fire hazards, to loss of beach recreation areas to liability.

In any geographical area prone to oil spill crises a structure must be established and maintained which:

1. Utilizes only experienced people
2. Encourages interagency communication and support
3. Recognizes and utilizes the special skills of each organization
4. Insures that the many steps needed to minimize

the effects of an oil spill are all carried out quickly and efficiently.

SPECIAL CONCERNS

We are concerned with the potential waste of the vast amounts of monies which are going to be made available from industry and government sources following this recent wave of interest in oil spill response. We are already seeing government offices and academic institutions (that have demonstrated no interest or background in this subject) rushing to throw together research proposals that will obtain funding. We will soon see the "new doctoral candidate syndrome" where vast amounts of money are spent commissioning graduate students or consulting agencies to do unnecessary research / studies on a subject they cannot fully comprehend.

We are concerned that congresssional inquiries seem to focus on the victims and alleged perpetrators of oil spills. These people can tell you about the problem, but they can't tell you about the solution. For that, you would best direct your attention to those of us with a long-standing commitment to and experience in oil spill response. To that end, I am extremely grateful to you for inviting my participation today.

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Dealing with Products of Known or Unknown Hazardous Nature

STATEMENT OF POLICY

Petroleum products are generally comprised of many hundreds or even thousands of discrete chemical compounds. Even in the best of circumstances these materials are toxic to animal life; often they contain compounds either known to be, or suspects of being, carcinogens or reproductive toxins.

Although the mechanisms of carcinogenisis and mutagenisis are not well understood, it is clear that direct contact with hazardous agents should be minimized and that repeated contact should be avoided at all costs.

We at Tri-State feel it is important to protect our staff and volunteers from these hazards. While we do not advocate blind paranoia in dealing with oiled birds, we do feel precautions should be taken to safeguard our workers from contact with petrochemicals, as we would when working with any material with unknown toxicity. We therefore warn our volunteers about the potential long-term hazards of oiled bird rehabilitation and require that they wear gloves and protective clothing to minimize contact with the products. We would further recommend people rescuing oiled birds in the wild and those cleaning up soiled shorelines to take similar precautions.

Volunteers are also required to be over eighteen years of age and to sign release forms.

EJD

MARITIME EXCHANGE

913 LAFAYETTE BUILDING, PHILADELPHIA, PA. 19106

Telephone (215) 925-1522
Facsimile (215) 925-1128
Easylink/Telex 62857977

PRESIDENT
VICE-PRESIDENT
EXECUTIVE DIRECTOR & SECRETARY
TREASURER
SOLICITOR

TESTIMONY PRESENTED BY WILLIAM A. HARRISON, PRESIDENT, PORTS OF PHILADELPHIA MARITIME EXCHANGE, AT A FIELD HEARING CONDUCTED BY THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS OF THE HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES CONCERNING THE "PRESIDENTE RIVERA" OIL SPILL IN THE DELAWARE RIVER

IDENTIFYING REMARKS:

My name is William A. Harrison and I am President of the Ports of Philadelphia Maritime Exchange. The Maritime Exchange was founded in 1875 and operates as a non-profit trade association. It serves as an advocate for its membership of over 200 business firms engaged in all phases of port operations in the tri-state Delaware Valley region. From the organization's inception to the present, the Ports of Philadelphia Maritime Exchange has played a prominent role in matters dealing with and encouraging safe navigation on the Delaware River. Over the 114 years of the organization's existence we have been actively involved as a strong voice in those programs leading to the deepening and widening of the Delaware River ship channel; the removal of hazardous shoals and bends along the waterway; the placement of tide gauges at critical points along the river; the establishment of an excellent buoyage system; the construction of anchorages at key points along the river; the development of the bridge to bridge radio telephone system which has become the national standard communication system used on waterways by vessels in transit in and out of U. S. ports.

The Maritime Exchange ship reporting station at Cape Henlopen located in Lewes, Delaware is considered a model of well equipped, well run expert service. Our reporting station coordinates requests for support, agent's directions, pilot's instructions and boarding, vessel queries for weather, anchorage space availability, requests for ship's chandlers, and a wide variety of communications interfacing with marine business. We naturally are most proud of the level and volume of service our reporting station supplies to over 3,000 vessels per year calling at our Delaware River ports.

TESTIMONY:

The Cape Henlopen Ship Reporting Station contains the latest state of the art radar called ARPA (Automation Radar Plotting Apparatus), with a back up radar also available if needed, plus having the use of VHF radio capable of communicating on channels (74, 16, 14, and 13). A generator is at the site for use should a power failure occur. I should like to invite you as part of these proceeding to witness first-hand inspection of our Cape Henlopen Ship Reporting Station and the facilities that support the system. I should be pleased to make the necessary arrangements for your visit if you will let me know when this would be feasible.

The Ports of Philadelphia Maritime Exchange is equally proud of the expertise, precision, and intense instructional process plus the many years of 24-hour a day devoted service of our sister organization, the Pilots' Association for the Bay and River Delaware, who handle the thousand upon thousands of demanding river commercial passages and who stand ready year round to offer their guidance for safe commerce.

Vessel safety is paramount to these many facets of trade. It goes without saying that no ship owner wants to send his vessel which may cost from $25 million up to $100 million or more -- to a port that has a reputation for hazard or non-safety. We address safety issues constantly and for all the right reasons, because we, the Maritime Industry, are a major user of the Delaware River and because we care.

I should like to confine my remaining remarks by dealing with the question: Would it be desirable to expand the Coast Guard's Vessel Traffic System to the Delaware River? My answer is "No" and I will explain.

A number of years ago, the U.S. Coast Guard received a mandate from the Congress to establish Vessel Traffic Systems where they were deemed necessary. Among the locations selected were New York and Puget Sound. The Delaware River Vessel Traffic System preceded by years the involvement by the Coast Guard into this area. Examination of the Delaware River system by the Coast Guard confirmed our belief that our private Vessel Traffic System was superior. As a consequence the Coast Guard, properly I believe, confirmed that at this port there was no reason to inject themselves and to possibly disrupt a highly efficient, effective, totally workable system already in place. A system that clearly was ahead of its time!

The Delaware River Vessel Traffic System is operated by the Pilots' Association for the Bay and River Delaware. The Maritime Exchange serves to support the Pilots' Association and the Traffic System as an interface entity, by providing needed ship information which is generated by the shoreside apparatus involved. This deals with such matters as when and where the tug boats are scheduled to meet the incoming vessel, its destination along the river, the desired time of arrival, and numerous other pieces of operational information; all of which goes into the system.

I should like to say that of the 3,041 commercial ships that called at the Ports of Philadelphia in 1988, there were 981 tankers, 63 bulk/oil vessels and 18 liquid gas carriers. You also should be aware that there never has been a vessel casualty on the Delaware River that could be classified as being in any way connected to a failure of our vessel traffic system. I should like to add that while the investigative findings involving the "PRESIDENTE RIVERA" have not been officially released, none of the preliminary information indicates any failure relating to the operation of our vessel traffic system.

In closing, please know that the Ports of Philadelphia Maritime Exchange encourages safe and open passage of normal and traditional two-way flow of traffic that historically has been a logical outcome of need. The concept of one-way traffic will disrupt and reduce commerce, lend little or nothing to routing in that accidents of scale historically have been ships in contact with fixed objects, groundings, for the most part the result of vessel equipment failure, or simply human error and not by collision, lack of water space or from a paucity of knowledge about currents, tides or draught.

The Maritime Exchange is not judgemental but indeed is an advocate, an encouraging observer, and has expertise in the procedures which benefit our region's vast marine and trade community. The Maritime Exchange regularly offers to its membership new developments and methods to enhance the unification and the development of business, marketing, local change and opportunities to protect our natural environment. Marine safety is one of those.

I thank you very much for your attention.

STATEMENT OF

CAPTAIN PAUL LANE IVES, JR.
PRESIDENT

THE PILOTS' ASSOCIATION FOR THE BAY AND RIVER DELAWARE

BEFORE

THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
HOUSE COMMITTEE ON MERCHANT MARINE AND FISHERIES

JULY 17, 1989
PHILADELPHIA, PENNSYLVANIA

The members of the Pilots' Association for the Bay and River Delaware are 85 state licensed pilots who are citizens of Pennsylvania, New Jersey, and Delaware. We are responsible for the navigation of about 95% of the ocean-going vessels transiting the Delaware River between the Delaware Bay entrance and the Head of Navigation at Trenton, New Jersey, and the Chesapeake and Delaware Canal.

With the oil spill disaster in Alaska and the recent incident here on the Delaware foremost in our minds, we are keenly aware that a third of the vessels we pilot on the Delaware River are carrying crude oil or other petroleum and chemical products.

I am here to reassure you that the principal focus of the members of the Pilots' Association is on prevention of such casualties. State pilots handle more than 3,000 ships arriving at the Delaware Capes each year. They are the most highly qualified and thoroughly trained seamen you will find anywhere in the world. The standards, training, oversight, and discipline of State pilots far exceed federal requirements of the United States Coast Guard.

Concerning our standards: To even be eligible to take an examination for a fourth-class, entry level, state pilot license, an apprentice must make from 650 to 1,100 trips on the river, which will take 4 years to complete. These trips must all be under the guidance of an experienced pilot standing by his side, under all weather and sea conditions, on all types of ships. Another four years' experience is required before he may qualify for a first-class license to pilot the largest ships. Our comprehensive drug and alcohol programs, required annual and random testing, stringent annual physical examinations, mandatory retirement age, annual proof of frequent service on the river, as well as our continuing professional education program all far exceed U. S. Coast Guard requirements. Our system is geared to correcting a problem before an incident, not after the fact.

Concerning our training: In addition to the training of apprentices, mentioned above, all of our pilots take part in an extensive continuing education program. At a cost of more than $9,000 per man, every pilot is going to the world's finest advanced ship-handling school in Grenoble, France. Each pilot also undertakes frequent ship simulator training and refresher courses in radar, ARPA, and subjects such as Rules of the Road here in the United States.

Local pilots are responsible to their respective state-appointed pilot commissions and boards who provide careful oversight of their professional activity. Pilots are motivated to perform in a professional manner through training and experience, not out of fear of disciplinary proceedings after an accident.
Taking into consideration the variety of adverse conditions pilots must face, our job could be considered to embrace an element of

risk. We have put considerable time, money and effort into making the operation as safe as possible.

Our vessel traffic system (VTS) on the Delaware River, operated by pilots in conjunction with the Philadelphia Maritime Exchange, is one of the most technologically advanced you will find anywhere in the world. It is manned by trained and experienced pilots 24 hours a day, 365 days a year. We have invested heavily in state of the art radar and communications equipment with additional support of sophisticated computer programs. Our command center at Cape Henlopen tracks vessels from at least 20 miles at sea, all the way to Big Stone Beach Anchorage, with precise positioning and full communication at all times. A VHF radio network extends the length of the river and all ships are able to know the exact location and intended maneuvers of all other ships. The whole system works well. The record speaks for itself: ships have been calling at Big Stone Beach Anchorage for 32 years. They discharge part of their cargo into barges before proceeding upriver to our seven major refineries or other petroleum and chemical terminals. There have been virtually no oil spills there during those 32 years!

Pilotage service is available to all ships entering the Delaware Bay, 24 hours a day, year around. It all takes dedication to the proposition that well qualified and experience local state pilots are the best investment in safe navigation on our inland waters.

In response to your invitation to comment specifically on the recent incident involving the grounding of the Presidente Rivera, it appears that the principal cause of the casualty was premature dropping of the anchor by the vessel's crew. This would not seem to reflect adversely on the performance, training, or qualifications of the ship's local pilot, or upon the system of state pilotage.

The suggestion of providing tugboat escorts for large oil tankers is not necessarily safer for a variety of reasons. Our experience when moving vessels with tug escorts in the upper Delaware River between Philadelphia Harbor and Fairless Steel has shown that tugs are useful in limited circumstances. At normal transit speeds, tugs are totally ineffective in controlling a large vessel. They are useful only when the vessel speed is below 3 or 4 knots, such as maneuvering at anchorage, docking, bridge approaches and sharp turns in narrow channels with adverse currents. Our experience does not indicate that towing large tankers up the Delaware River would be any safer than allowing them to navigate as they do now. Ships are designed to be most effectively controlled with their own machinery. Attention would be far better directed toward the quality of vessel maintenance and its equipment.

The width of the channel did not seem to be a significant factor in this particular incident, and large vessels normally have no difficulty meeting and passing each other in the 800 foot channel. One way traffic is not relevant to this incident. Such a plan is unworkable and would totally disrupt port operations. Widening of the channel in the rock areas near Marcus Hook and Chester could provide a greater safety margin in case of a similar emergency.

Since more than 90% of ocean going ships calling at our ports are under foreign flag and employ crews of all nationalities, the English language has become standard for international shipping. While the quality of the crew's conversational English may vary, the pilot rarely has communication problems on the bridge. Our pilots, because they are on foreign vessels every day, have become quite effective in seeing that their directions are carried out. It is a basic skill of the state pilot.

In the case of the Presidente Rivera, the pilot reported that he had no difficulty communicating with the captain or other bridge officers. Preparation of the anchors for arrival is a perfectly normal and routine maneuver. We understand the ship's personnel were advised in sufficient time to accomplish this task before arrival at the anchorage. There was no sense of urgency on the part of the pilot. We can only infer that because the captain was sailing on a much larger vessel than he was accustomed, his nervousness may have somehow been transmitted to the crew on the bow in a manner that was not noticed by the pilot.

In the matter of a federally operated Vessel Traffic System similar to the one that failed in Alaska, our local industry is of the opinion that the system presently operating on the Delaware is far more effective for the simple reason that it is operated by local steamship interests and experienced local pilots. We have not had a single casualty in recent memory where the presence or absence of VTS was a factor. We would strongly oppose substitution of a federal system here operated by USCG ratings.

We should also emphasize that cooperation between the local tanker operators and pilots is excellent. Working through the Mariners' Advisory Committee, an organization of owners, operators, pilots, and other experienced mariners meeting on a regular basis for more than 20 years, operating rules and safety standards are mutually agreed upon. State pilots are under no pressure from tanker operators to undertake an unsafe transit. The pilot's ultimate responsibility is to his state and its environment. His decision is final.

In closing, let me emphasize that our duty as local pilots, the main thrust of our professional activity, is to prevent marine casualties - to keep environmental disasters like Valdez from happening here in the Delaware. We are anxious to work both with government and industry to achieve this goal.

Statement of Anita Miller, Regional Environmental Officer, Office of Environmental Project Review, Office of Assistant Secretary for Policy, Budget and Administration, United States Department of the Interior, before the House Committee on Merchant Marine and Fisheries regarding the Presidente Rivera Oil Spill.

July 17, 1989

My name is Anita Miller. I am the Department of the Interior's Regional Environmental Officer for the mid-Atlantic states, and I serve as the Department's representative on the Region III Regional Response Team. Functionally my office is part of the Office of Environmental Project Review, within the Office of the Assistant Secretary for Policy, Budget, and Administration. I appreciate the opportunity to speak about the Department of the Interior's role during the Presidente Rivera oil spill on the Delaware River. Dick Nugent, the U.S. Fish and Wildlife Service Refuge Manager at the Tinicum National Environmental Center Complex, is here with me, and is also available to respond to questions.

The Department of the Interior is very concerned about potential natural resource impacts that can occur during oil spills. This concern was evident when Secretary Lujan cancelled previous plans and visited the scene of the spill on the day it occurred.

Background of Interior's Role in Oil Spill Response

Oil spill response is governed by the National Oil and Hazardous Substances Contingency Plan (NCP), the appropriate Regional Contingency Plan and, in this instance, the Captain of the Port of Philadelphia's Local Contingency Plan. The Department of the Interior becomes involved when we are notified by the federal On-Scene Coordinator (either the Coast Guard or the Environmental Protection Agency, depending on the location of the spill). In some areas, regional and federal local contingency plans list close-by bureau personnel, often the U.S. Fish and Wildlife Service, as the first Interior official to be notified by the OSC. In other areas, the Department's Regional Environmental Officer or other bureau personnel are listed, depending on the locations of Interior personnel in the geographical area covered by the individual plans.

Interior has two operational roles during a spill incident: response (cleanup) activities, and natural resource damage assessment, if such an assessment is appropriate.

The Department of the Interior's objective during spill response is to prevent or mitigate impacts to Interior resources and landholdings, and to provide technical expertise and logistical support to the On-Scene Coordinator (OSC). As soon as the cleanup activities are well underway, the Fish and Wildlife Service, along with any other affected natural resource trustee offices within the Department, and the Department's Regional Environmental Officers work in coordination with the other Federal and State trustees to consider natural resource damage assessment possibilities.

The Department of the Interior has assigned Regional Environmental Officers from the Office of Environmental Project Review to represent the Department on the 13 Regional Response Teams nationwide. The role of the Regional Environmental Officer during a spill is to provide advice and assistance to the OSC, to coordinate with and provide information to the Interior bureaus directly involved with the incident, and to ensure the consideration of Interior's concerns during the response and cleanup operations. The U.S. Fish and Wildlife Service, which is the bureau most frequently involved in oil spill response, has assigned spill response coordinators in each of its seven regions, and field response coordinators to cover specific geographical areas. The field response coordinators handle the actual on-scene work, and come from a number of operational activities, including refuge managers, environmental contaminant specialists, and fishery biologists.

Presidente Rivera Spill

The Presidente Rivera ran aground at 4:45 a.m. on Saturday, June 26. The Department of the Interior received notification from the Coast Guard by 8:00 a.m., and activated response personnel. The Multi-Agency Local Response Team (MALRT) that operates under the leadership of the Coast Guard's Captain of the Port of Philadelphia, is a highly prepared group of federal, state, municipal, and industry representatives that has responded to four major spills on the Delaware River in the past four years. The Fish and Wildlife Service is a member of the MALRT, and responded promptly to the spill.

Fish and Wildlife Service response personnel spent much of their time identifying sensitive areas to be protected and looking for oiled birds, using frequent overflights, boat patrols, and riverbank checks. Approximately 120 oiled birds, mostly flightless Canada geese, several semi-domestic mallard ducks, and an egret, were captured and taken to the bird cleaning center at Tri-State Bird Rescue and Research in Wilmington, Delaware. Nine of these birds have died, but we anticipate that most of the remaining number will recover and can be released.

The key areas that we were initially concerned about were the Fish and Wildlife Service's refuges along the Delaware River and Bay, including the Supawna Meadows, Bombay Hook, and Prime Hook National Wildlife Refuges, and Tinicum National Environmental Center Complex as well as Pea Patch Island, where there is a wading bird rookery with approximately 13,000 pair of nesting herons, egrets, and ibis. Both the Supawna Meadows refuge and Pea Patch Island had some relatively light oil impacts along the shoreline. Oil has also come ashore in Delaware wetlands, where there is an ongoing cleanup effort. The Service is conducting in situ bioassays with fingerling striped bass and collecting larger striped bass to conduct stomach analysis to evaluate impacts to that species.

The second phase of Interior's activities, which addresses a possible natural resource damage assessment, is still in relatively early stages. There are five natural resource trustees involved in the Presidente Rivera oil spill: the States of Delaware, New Jersey, and Pennsylvania, the Department of Commerce's National Oceanic and Atmospheric Administration, and the Department of the Interior. The trustees are coordinating their efforts for initial ephemeral data collection, and are discussing various approaches to evaluating natural resource injury that may have resulted from the spill. Although the extent of any sublethal or long-term impacts has not yet been evaluated, it appears that there has not been major acute impact (mortality) to the natural resources under the Department of the Interior's trusteeship.

Summary

In our opinion, the existing spill response mechanism, and in particular the Multi-Agency Local Response Team, functioned as it should on this oil spill. The existing good working relationships among the Federal, State, municipal, and industry members of the MALRT allowed the group to quickly address and resolve the many problems and issues that arose during the response to the spill.

The natural resource trustees are working together to address the issue of possible natural resource damages resulting from the spill.

STATEMENT OF
EDWIN B. ERICKSON
REGIONAL ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
COMMITTEE ON MERCHANT MARINE AND FISHERIES
HOUSE OF REPRESENTATIVES
PHILADELPHIA, PENNSYLVANIA

JULY 17, 1989

Mr. Chairman and Members of the Subcommittee, I am Edwin B. Erickson, Regional Administrator of Region III of the Environmental Protection Agency. The Middle Atlantic Region is responsible with our colleagues in State government for the implementation of Federal environmental programs in Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and the District of Columbia. I am pleased to appear before you today to discuss the recent oil spill in the Delaware River by the Presidente Rivera and I hope that the work of this Subcommittee will decrease the likelihood of future spills and increase the ability of industry and government to contain and respond to any spills that occur in the future.

Congress properly recognized the national value and significance of the Delaware River and Bay when it designated in 1986 the Delaware Estuary for priority consideration under the National Estuary Program created by the Clean Water Act. Just a few weeks ago on May 26, I and my colleagues in EPA Region II; and the States of Pennsylvania, Delaware, and New Jersey stood just a few hundred yards from here and pledged our support for a five-year management conference agreement to define the problems of the Delaware and develop strategies for its preservation and cleanup.

We certainly did not expect that several hundred thousand gallons of oil would soon be released from an errant tanker, threatening our shores and nearby wildlife refuges. EPA Administrator William Reilly is also very concerned about the effects of oil spills on our inland and coastal waterways and flew to the scene of the Presidente Rivera spill as quickly as possible on the day that it occurred.

The inevitability of major oil spills becomes quite evident in examination of recent history, with the Ashland oil spill near Pittsburgh in January 1988, the Valdez oil spill in March 1989, and three large spills within 24 hours on June 24, 1989, including that of the Presidente Rivera. Our experience tells that they are all serious; that they are usually plagued by unique situations which hamper our cleanup capabilities; and that they require complex planning and interagency cooperation. The frequency with which oil spills occur and their resultant damage to our waterways, their banks, and flora and fauna may be viewed as the cost of our dependence on the transport of oil for our use.

These major spills are of very serious concern to us. Like the members of this Subcommittee, we want to insure that our planning is adequate and our emergency response processes are as effective as they can be for oil spills on the Delaware. We began discussing some weeks prior to the spill the convening of a conference to review these contingency capabilities in the Delaware, and will soon move forward on this important project.

EPA Region III is also working with the States to examine our oil spill preparedness capabilities on the Chesapeake Bay. Coincidentally, our first meeting with State and other Federal agencies to discuss oil spills on the Chesapeake Bay was held on June 29, just a few days after the Delaware River spill occurred.

Spill Preparedness and Response Under the Clean Water Act

Section 311 of the Clean Water Act established a Federal program aimed at preventing and responding to the release of petroleum products to the navigable waters of the United States. Section 311 also required the President to prepare a National Contingency Plan (NCP) for removal of oil and hazardous substances which are released into the navigable waters of the United States. The NCP designates an on-scene coordinator as the lead Federal official to direct cleanup. In the case of coastal waters and tidal waters, the U. S. Coast Guard has the lead to direct and coordinate the Federal response. In the case of inland waters, EPA generally has the lead. As a result, EPA's role was primarily advisory to the Coast Guard for the Presidente Rivera spill.

The NCP also outlines requirements to set up National and Regional Response Teams. Composed of 14 Federal agencies, the National Response Team has broad responsibilities for the coordination of Federal planning and preparedness. The National Response Team provides national support for response actions related to oil discharges and hazardous substance releases.

Regional Response Teams (RRTs) support emergency responders at all levels by means of technical expertise, equipment, and other resources. The RRT which covers Region III is co-chaired by EPA and the Coast Guard; it includes standing representatives from 11 Federal agencies and all Region III States. Each RRT is required to develop a Regional Contingency Plan (RCP) to identify responsibilities and support functions which the various Federal agencies can offer during a response. Region III's Regional Response Team has a Regional Contingency Plan which was updated in November 1988. In addition, a Multi-Agency Local Response Team (MALRT) had been established within the Federal Command Post at the Coast Guard Marine Safety Office in Philadelphia. This MALRT consists of many of the same agencies as those in the Regional Response Team.

EPA's Role in the Presidente Rivera Spill

EPA's first knowledge of the spill from the *Presidente Rivera* came via a phone call from the Coast Guard to our on-call duty officer at 5:38 a.m. on June 24, 1989, notifying us that an unknown quantity of No. six oil had been spilled by a vessel which ran aground and that the vessel's agent had hired several contractors to begin cleanup. EPA representatives maintained frequent communications with the Coast Guard throughout and offered technical assistance.

The spill had occurred in an area under the jurisdiction of the Coast Guard; therefore, Captain Larry Murdoch, Captain of the Port of Philadelphia, assumed on-scene command and was responsible for directing the pollution response operations. The Coast Guard had activated the Regional Response Team (RRT) to coordinate response efforts among the Federal, State and local pollution response agencies. The Multi-Agency Local Response Team (MALRT) was also activated. As appropriate for our advisory role in this case, EPA representatives participated in all of the MALRT activities and provided technical support and oversight. EPA Regions II and III also provided On-Scene Coordinators. EPA Region III provided a mobile command unit. EPA also activated its Technical Assistance Team (TAT) contractor to provide technical and logistical support to the RRT; all EPA Regional offices maintain 24-hour TAT contract readiness to support emergency response and oil spill activities.

Recognizing the seriousness of the spill, on Saturday, June 24, EPA decided to deploy the ocean survey vessel (OSV) Peter W. Anderson. In the course of a meeting of the MALRT at 7:30 a.m. on June 25, it became apparent that there was no accurate account of where or exactly how much oil was spilled. It was also not known whether any portion of the oil was submerged, a factor that could have greatly increased the severity of the situation and cleanup difficulties.

On Sunday, June 25, the OSV Anderson arrived, equipped and manned to conduct offshore sampling and spill surveys. Under the direction of William C. Muir, Region III's Oceanographer, a reconnaissance cruise was conducted with the following objectives:

- To define the aerial extent of the spill;
- To define the location of oil within the water column; and
- To quantify the volume of oil present if possible.

In order to perform this survey, the following plan of action was developed and implemented:

- For sampling purposes, the Delaware River was divided into a series of 15 transects beginning just south of the Chesapeake and Delaware Canal and continuing upstream to Philadelphia.
- A smaller boat which accompanied the Anderson was used to conduct intensive visual inspections of the New Jersey, Pennsylvania, and Delaware shorelines at each transect.
- Physical measurements were conducted at each station to define conductivity, temperature, and salinity with depth.

- Oblique Neuston tows were performed at each station to look for submerged oil products.

The Anderson performed sampling transects of the river on June 25 and 26. Contractor work efforts and all sampling findings were reported directly to the MSO Federal Command Post. One of the most important conclusions of the mission was that oil had not accumulated on the river bottom at that time, simplifying recovery. The mission also located areas of high concentrations of oil on the river which were targeted for cleanup.

EPA personnel also participated in helicopter overflights of the area to advise the Coast Guard on the location of oil and the efficacy of cleanup. On June 30, EPA collected additional samples to determine the acute and long-term toxicity of the oil product. Our biomonitoring studies indicated that the oil did not appear to be acutely toxic to aquatic organisms. Our long-term studies are not yet complete.

My predecessor, Jim Seif, appeared before this Committee just a little more than a year ago to testify on EPA's role as lead Federal agency for the Ashland oil spill on the Monongahela River. Fortunately, this recent spill was smaller in magnitude and also did not pose the threat to public water supplies that the Ashland spill did. The spill was nonetheless serious in its potential threat to wildlife habitat and wetlands. The nature of the oil product, which could change from thick tar to a floating sheen during the course of temperature changes on an average summer day, also made cleanup difficult.

The Subcommittee requested testimony on the adequacy of planning and the timeliness and appropriateness of the cleanup. Region III's Regional Response Team will review the actual response to the *Presidente Rivera* spill. The Regional Response Team had already made a commitment to review contingency plans for the Delaware and Chesapeake Bays, in the wake of issues raised after the Valdez spill. I will be happy to share the results of that review with you when it becomes available.

Mr. Chairman, that completes my prepared statement. I would be pleased to answer any questions the Subcommittee may have.

STATEMENT OF
ALYCE T. FRITZ
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
COMMITTEE ON MERCHANT MARINE AND FISHERIES
HOUSE OF REPRESENTATIVES

JULY 17, 1989

Good morning, I am Alyce T. Fritz, with the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce. I am NOAA's Regional Response Team Representative for Federal Region III, which includes the States of Pennsylvania, Delaware, West Virginia, Virginia, Maryland, and the District of Columbia. With me today is Ed Levine, the NOAA Scientific Support Coordinator for the Port of Philadelphia.

NOAA's Response Role

NOAA has two major roles in the national response system: its representatives serve on the National and Regional Response Teams and it provides Scientific Support Coordinators (SSC) to U.S. Coast Guard (USCG) Federal On-Scene Coordinators (OSC). These roles are defined in the National Contingency Plan (NCP), Sections 300.32(a) 300.32(b), and 300.34(d), respectively. NOAA also acts on behalf of the Secretary of Commerce as a Federal Trustee for natural resources in coastal and marine areas under the Clean Water Act and the Comprehensive Environmental Response, Compensation, and Liability Act. My statement, however, will focus on NOAA's response role in the June 24 oil spill from the T/V PRESIDENTE RIVERA.

The NCP and the national response system it established were initiated in the late 1960's as a result of concern in the United States about the extensive environmental and economic damage from oil spilled off the coast of England when the tanker TORREY CANYON grounded in 1967. The focal point of the national response system then, and now, is the Federal On-Scene Coordinator, who is in charge of all Federal response activities. The OSC for spills in coastal and marine areas is usually a pre-designated officer from the U.S. Coast Guard, while OSC's for inland spills are furnished by the U.S. Environmental Protection Agency (EPA).

Federal OSCs are supported by Regional Response Teams (RRT) consisting of 14 Federal agencies and state representatives in each of the ten Federal Regions plus one each in the Caribbean, Pacific Oceania, and Alaska. During a spill, the OSC can call on those RRT member agencies whose specialized response capabilities are needed for that spill without convening the entire RRT. This group, which may vary from spill to spill, is referred to as the "incident specific" RRT. When not involved in spills, RRT's develop and strengthen regional contingency plans, evaluate regional preparedness and coordinate training and exercises for response personnel.

RRT activities are supported at the national level by the National Response Team (NRT), a planning and coordinating body consisting of the same 14 Federal agencies that stands ready to provide assistance during a large spill but which does not itself respond directly. The NRT coordinates the activities of its member agencies to ensure a unified Federal approach on policy questions about national response capabilities and preparedness for oil and hazardous substance incidents.

Federal OSCs have a number of "special forces" they can draw on during a spill response. One of these is provided by NOAA through its Hazardous Materials Response Branch (HAZMAT), which maintains a team of nine highly-trained, experienced Scientific Support Coordinators (SSCs) located in Coast Guard Districts around the country (including the Great Lakes) to facilitate rapid response on a 24-hour basis. The SSCs are backed by an interdisciplinary group of chemists, ecologists, and oceanographers that use a nationwide communications network to provide timely expert advice that includes: a) microcomputer trajectory models that show in graphic form the predicted movements of pollutants in water or air; b) identification of sensitive environments and recommended protective measures; and c) automated data management to speed the flow of accurate and timely information to all responders. SSCs also coordinate the inputs of scientific information to the OSC from all sources, including universities and other private entities, and assist the OSC by briefing affected communities on scientific issues that arise during spill response. When not working at a spill, SSCs provide scientific assistance to RRTs and OSCs in contingency planning and response training.

Over the last decade the NOAA scientific support team has responded to over 2,000 spills nationwide. NOAA's goal is to provide the best available scientific information on any technical question in a timely and useful form to substantially enhance the effectiveness of response operations.

NOAA's Response to the T/V PRESIDENTE RIVERA Incident

HAZMAT headquarters in Seattle, Washington, was notified by the USCG Marine Safety Office (MSO) in Philadelphia around 7:30 a.m. on Saturday, June 24, that the T/V PRESIDENTE RIVERA had run aground on the Marcus Hook Range in the Delaware River near Philadelphia. Because the predesignated SSC for the Philadelphia area was already enroute to Newport, Rhode Island for the T/V WORLD PRODIGY spill, Ann Walker, another SSC stationed in Virginia who had previously worked on major spills in the Delaware River, was notified at 7:46 a.m. by HAZMAT and dispatched to Philadelphia.

The initial release was estimated to be 1,000 gallons of No. 6 fuel oil extending in a slick one-half mile south of the ship. The SSC informed the MSO within the hour that they should not expect an acute toxicity problem as a result of a release of No. 6 fuel oil (e.g., no fish kills likely) but should expect oiling of vegetation and birds. The SSC's initial cleanup recommendation was to avoid cutting the vegetation and to contact the Department of the Interior (DOI) RRT representative for information on the current location of significant bird populations so that these areas could be protected. She also contacted Tri-State Bird Rescue to alert them of possible response needs. The SSC recommended that the MSO staff use the detailed NOAA Environmental Sensitivity Index (ESI) Maps and the recently completed seasonal maps that show environmentally sensitive areas for the entire Delaware Bay to identify resources at risk and riverbank and creek areas requiring priority protection.

The SSC requested that the HAZMAT support team run trajectories for the predicted movement of oil and arranged for these to be sent directly to the USCG MSO in Philadelphia via facsimile machine. The initial trajectory was available by approximately 9:00 a.m. the same morning of the spill, to be used together with the ESI maps to help the OSC prioritize areas for the placement of booms. The SSC also arranged for a spill hotline (an electronic mail system) to be established for use by NOAA, the RRT, and other involved parties.

As the NOAA RRT Representative based in Philadelphia, I was asked to report to the MSO while the SSC was enroute from Virginia. I was able to ensure that the trajectory predictions reached the OSC, to set up on-scene computer support, and to coordinate resources-at-risk information with the Department of the Interior and the resource agencies of the affected States.

The SSC arrived on scene at approximately 2:30 p.m. on June 24. She asked the HAZMAT support team to provide information on the physical properties of the oil in time for a science meeting later that day. The estimate of released oil had been increased to 1.6 million gallons by this time and new trajectories were needed. On-scene observations of floating oil appeared to be much less than the estimated release, suggesting that either some of the oil may have submerged or that the estimates of the amounts released were incorrect.

At 4:30 p.m., the SSC convened a science meeting to: identify significant issues; advise the agencies on operational issues likely to arise in the next few days that required coordination among them (i.e., cleanup recommendations and disposal); and to determine immediate action items for which additional information would be needed. She reported on physical properties of the oil, current overflight information, and provided recommendations for protective measures based on experience from previous spills in the Delaware River.

Because of the estimated size of the spill, the SSC requested additional NOAA on-scene support and had computerized maps of the Delaware River and Bay prepared in Seattle for use on-scene the following day. The SSC also helped organize a bottom survey to look for submerged oil by using sorbents attached to weights for soundings. The survey, conducted by three multi-agency teams in boats, was completed by midnight on June 24, but no oil was found on the bottom.

Early on the morning of June 25, the SSC met with the EPA staff to develop a work plan for oil reconnaissance activities using EPA's research vessel. She also held a science meeting to discuss the previous night's sounding results and field plans for the day. She briefed the Commissioner of the New Jersey Department of Environmental Protection on the expected behavior of the oil and arranged future coordination with that State's representatives. NOAA continued working with the States and DOI to prioritize areas (i.e., wetlands and the heron rookery on Pea Patch Island) for cleanup and to develop strategies for preventing oil from reaching river banks.

Additional NOAA personnel arrived on-scene the afternoon of June 25, to assist in trajectory predictions, assessment of the behavior of the oil in the environment, information management, and shoreline cleanup. The computerized base maps produced the day before were distributed. Comments from the States on spill-specific cleanup recommendations were incorporated and a briefing sheet for cleanup crews was produced. NOAA was asked to conduct morning briefings for Delaware Department of Natural Resources and Environmental Control cleanup supervisors and to train them on the best cleanup techniques for environmentally sensitive areas.

On June 27, the OSC asked the SSC to coordinate the field activities of the State response agencies. This required the development of a generic daily operations plan for cleanup that was based on scientific information, including the following inputs from NOAA: a) weather forecasts; b) trajectory projections and predicted behavior of oil (floating or grounded); and c) information on the location and extent of shoreline contamination. The SSC and I, as the NOAA RRT representative, worked with NOAA's National Marine Fisheries Service, EPA, DOI, State resource agencies, and local university scientists to assess the relative toxicity of the spilled oil, the likely impacts on sensitive spawning areas and wetlands, and the type and extent of cleanup needed in wetland areas. NOAA provided information for sampling strategies and helped coordinate sampling and analysis efforts (i.e., water, sediment, fish, and bioassays) to avoid duplication of effort and optimize the exchange of information.

On June 30, reports were received from fishermen that crabs had been oiled and that there was oil in the crab pots. The SSC suggested that the spiller's insurance representative meet with Delaware officials to discuss documentation and compensation. NOAA determined that the beached oil became negatively bouyant by collecting sediments from sand beaches and was then transported below the surface of the water into crab pots. It conducted crab pot surveys and interviews with crab fishermen to determine the extent and amount of sub-surface oiling and identified the beaches which were the most likely source of the sub-surface oil.

NOAA provided trajectories of floating oil movement through June 28 (by which time the estimated amount spilled had been downgraded, first to 800,000 and ultimately to 300,000 gallons), and tracked shoreline oiling through daily overflights and field observations through July 3. It also supplied computer-generated maps of observed oil (overflights or boat surveys) to the OSC to be used in briefings and press conferences. NOAA observed cleanup operations and made recommendations for improved methods, based on its operational experience. When sorbents proved ineffective in handling the thick oil, for example, NOAA recommended deploying snares to catch oil coming off the marshes with high tides, a technique which proved effective.

Thank you, Mr. Chairman, for the opportunity to highlight various aspects of NOAA's response to the T/V PRESIDENTE RIVERA incident. I will be glad to respond to any questions that you or other members of the Committee may have.

STATEMENT OF
GERARD BURKE, ACTING DEPUTY COMMISSIONER
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

BEFORE THE
HOUSE MERCHANT MARINE AND FISHERIES COMMITTEE
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

ON

OIL SPILL EMERGENCY RESPONSE

PHILADELPHIA, PENNSYLVANIA

JULY 17, 1989

Good morning Mr. Chairman, members of the subcommittee. I am Gerard Burke, Acting Deputy Commissioner of the New Jersey Department of Environmental Protection. I am appearing on behalf of Christopher Daggett, Commissioner of the New Jersey Department of Environmental Protection. I have with me Stan Delikat, Chief of the DEP's Bureau of Emergency Response. Thank you for this opportunity to address the important issue of oil spill emergency response.

A few months ago, the Valdez Oil Spill and its environmentally disastrous consequences caused us to review our contingency plans for a similar emergency in New Jersey waters. Fortunately, not many supertankers of the Valdez capacity ply our waters, but, because of New Jersey's population density and our relatively narrow waterways, a much smaller spill has the equivalent potential for economic and ecological disaster. The 300,000 gallon spill last month by the "Presidente Rivera" is the latest in a series of major spills on the Delaware River which form the basis for my testimony today. In September 1985, "The Grand Eagle" spilled more than 400,000 gallons of crude oil; in March 1986, "The Intermar Alliance" spilled 200,000 gallons of crude oil; in September 1986, "The Viking Osprey" spilled 250,000 gallons of crude oil; and last January 1989, a Texaco barge caused a 100,000 gallon spill of diesel oil and toluene. This totals five major petroleum spills along the Delaware since September 1985.

Before I make specific recommendations as to how we might better respond to major oil spills, I wish to address the broader issue of the areas of New Jersey threatened by, and the responsibilities for, handling such incidents. As you are aware, the Coast Guard has the primary responsibility for handling oil spills in the waters surrounding New Jersey. From Toms River north, the Captain of the Port of New York Coast Guard Group is responsible. The remainder of New Jersey's coast, including Delaware Bay and the Delaware River all the way upriver to Trenton, is the responsibility of the Coast Guard Group Philadelphia. Thus, the responsibility to protect the major portion of New Jersey's shore line belongs to Captain of the Port of Philadelphia (See Figure 1). This is also the principal area threatened in New Jersey since over 70% of all oil entering the Eastern United States does so through Delaware Bay.

Coordination of oil spill responses in the Delaware River and Bay is unique in that the federal on-site coordinator, the Captain of the Port of Philadelphia, has organized a very active Multi Agency Local Response Team as his primary advisory body. This team serves up to and through the point of activation of the Regional Response Team, the typical coordinating body for most ports. Essentially, the same federal, state and local municipal agencies are represented on both teams, but the Multi Agency Local Response Team has the advantage of industry's direct participation. In the recent "Presidente Rivera" spill, the Multi Agency Local Response Team was the coordinating authority.

While the Coast Guard has responsibility for spills in waters surrounding New Jersey, for spills on land, and spills on the major inland navigable streams, the responsibility for regional planning and oil spill response under the Superfund Amendments and Reauthorization Act rests with EPA Region II for New Jersey and New York, and with EPA Region III for Pennsylvania and Delaware.

In addition to the Coast Guard and the EPA, two other regional oil spill planning cooperatives are noteworthy. While not publicly supported, the Clean Harbor Cooperative, a consortium of member companies, stands ready to reduce the impact of a spill by any member around the New York harbor area. Similarly, the Delaware Bay and River Cooperative has the same mission in the Delaware River.

The State of New Jersey itself, through the New Jersey State Police, Office of Emergency Management, is tasked with planning and coordinating all the state resources needed to mitigate a State of Emergency when declared by the Governor. Within my own Department, there are considerable resources available for initial response, damage assessment, mitigation and supervision of clean up efforts. Within the Department, the Bureau of Emergency Response is tasked with overseeing all emergency clean up actions. This fourteen person elite unit can call upon additional resources as needed through the Department's Emergency Response Coordinator. The Emergency Response Coordinator ensures currency of a detailed contingency plan which not only establishes priorities for response activities, but also provides a methodology for integrating the varied capabilities of the Department's multiple divisions in the event of a significant emergency. Such resources, though adequate for most emergencies, have their limitations when addressing major releases.

In addition, under the State's Spill Compensation and Control Act the Department has at it's disposal a fund which is available for response purposes. This fund may be utilized within established contracts with three of the State's largest clean up firms in the event the responsible party is unknown, unwilling or unable to initiate appropriate response actions. Such resources are of a finite nature, however, and do not lend themselves well to major incidents.

The salient message is that for small and moderate spills, New Jersey has a reasonable capacity to respond and protect its own shoreline in the event the federal response is inadequate, but for major spills of 100,000 gallons and more, rapid federal response is an absolute necessity to reduce the economic and environmental impacts of petroleum spills. That response in past Delaware River spills has been uneven. The mechanisms to put into place the resources and nature of expertise needed to deal with major spills are too slow. The Coast Guard apparently prefers allowing the Responsible Party to take charge of the clean up, rather than "federalize" the clean up of oil spills on the Delaware. The "federalized" spill off Newport, Rhode Island was an exception to this rule, and the quality of that response appeared markedly superior. I hasten to add that in each Delaware River spill, the responsible party rapidly declared a willingness to pay for clean up. Nevertheless, a fast initial federal response, later turned over to the responsible party to continue, could limit the impact of oil spills more effectively.

Fortunately, the State of New Jersey was spared significant short term economic and ecological damage in the recent spill of No. 6 oil. Tidal and wind conditions kept the oil off New Jersey river banks during the four days immediately following the spill. When the oil did arrive, significant effort, exceeding 120 contractor personnel and

35 state personnel, reduced its impact. Clean up data indicates that less than 10% of the 300,000 gallons originally spilled, actually impacted New Jersey. Most of the shoreline has been cleaned, but marshes seem to be resisting most clean up efforts. It will be slow work. Actual costs to the Department are about one quarter of a million dollars, which we expect to recover from the responsible party. The actual long term impacts on the marshes, birds and water life are more difficult to predict.

I have several practical recommendations pertaining to that faster initial federal response which I hope you will seriously consider.

First, communication with the clean up workforce on a major spill is essential but virtually nonexistent. Contractors hired to do clean up do not have mobile communication equipment capable of centrally controlling the hundreds of workers deployed over the miles of shoreline to be cleaned. Changes in priority can not be communicated. No federal on-site coordinator (OSC) has a communication package which he can overlay on the contractor workforce. One is sorely needed.

It is recommended that Congress task the National Response Team to design and acquire deployable priority communication packages capable of directing several hundred workers at major disasters. Further, that funds be made available for each Regional Response Team to acquire some of this deployable communication package for local training and first use capability.

Second, a successful response can occur only when full knowledge of the nature of the emergency is well at hand. The "Presidente Rivera" spilled more than 300,000 gallons of #6 oil in the Delaware River. Initial clean up efforts by the Coast Guard were hampered by uncertainties about the characteristics of #6 oil in a tidal river environment. These uncertainties delayed selection of an effective oil recovery strategy. Any delay in the initial stages of clean up compound the work needed to fully clean up spills and increase the probability of long-term environmental damage.

It is recommended that Congress establish a Spill Technology Clearinghouse as an element of the Coast Guard. This Clearinghouse would be available to the Coast Guard, and others, on a 24-hour basis and would contain the latest factual and scientific information about the behavior of oil and other chemical substances in water environments, as well as recommendations on appropriate clean up options. The Clearinghouse should also be charged with maintaining a nationwide inventory of major spill response equipment and of nationally recognized experts for rapid deployment in the event of a spill on a 24-hour basis.

Similar networks already exist for on-land chemical spills. For example, Chemtrec can be called by firemen and emergency responders' on a 24-hour basis for chemical characteristics and other relevant response information. A similar network for waterborn spills is needed.

Third, knowledge of the magnitude of the emergency must also be well at hand. The size of an oil spill is a very significant element of information because it directly establishes priorities for resource allocation. It also affects the public's perception of how much local, state and federal effort should be expended. Our past experience and recent examples have been that estimates of the size of a spill can vary erratically for several days - usually settling down only after independent assessments are made by private companies which specialize in cargo surveying.

It is recommended that Congress require that the National Oil Spill Contingency Plan list pre-approved private contractors capable of boarding an oil-spilling vessel and providing a credible loss assessment.

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It is recommended that Congress require that the National Oil Spill Contingency Plan list pre-approved private contractors capable of boarding an oil-spilling vessel and providing a credible loss assessment.

Fourth, we must ensure that the necessary infrastructure is in place for a successful booming operation. One of the first actions to limit damage to environmentally sensitive areas and to secure potable water intakes is the setting of protective booms. Routinely, these booms break, often because they cannot be adequately anchored. Along most major waterways, the locations at which such booms should be placed are known but there is no funding to build permanent anchors.

It is recommended that Congress require that the Army Corps of Engineers construct permanent anchors in areas declared environmentally sensitive which are subject to episodic oil spills. Regional Response Teams should be tasked with coordinating the selection effort with appropriate Coast Guard and Army Engineer districts.

Last, but by no means least, we have again been taught that there is no such thing as being too prepared. We strongly recommend that the Coast Guard be funded and directed to conduct additional drills to test preparedness of all response elements. We recognize the significant potential for oil spills in our waters. While our response posture can and does mitigate the small spills effectively, it is obvious that we need more effective federal help for the major ones.

I would be happy to answer any questions.

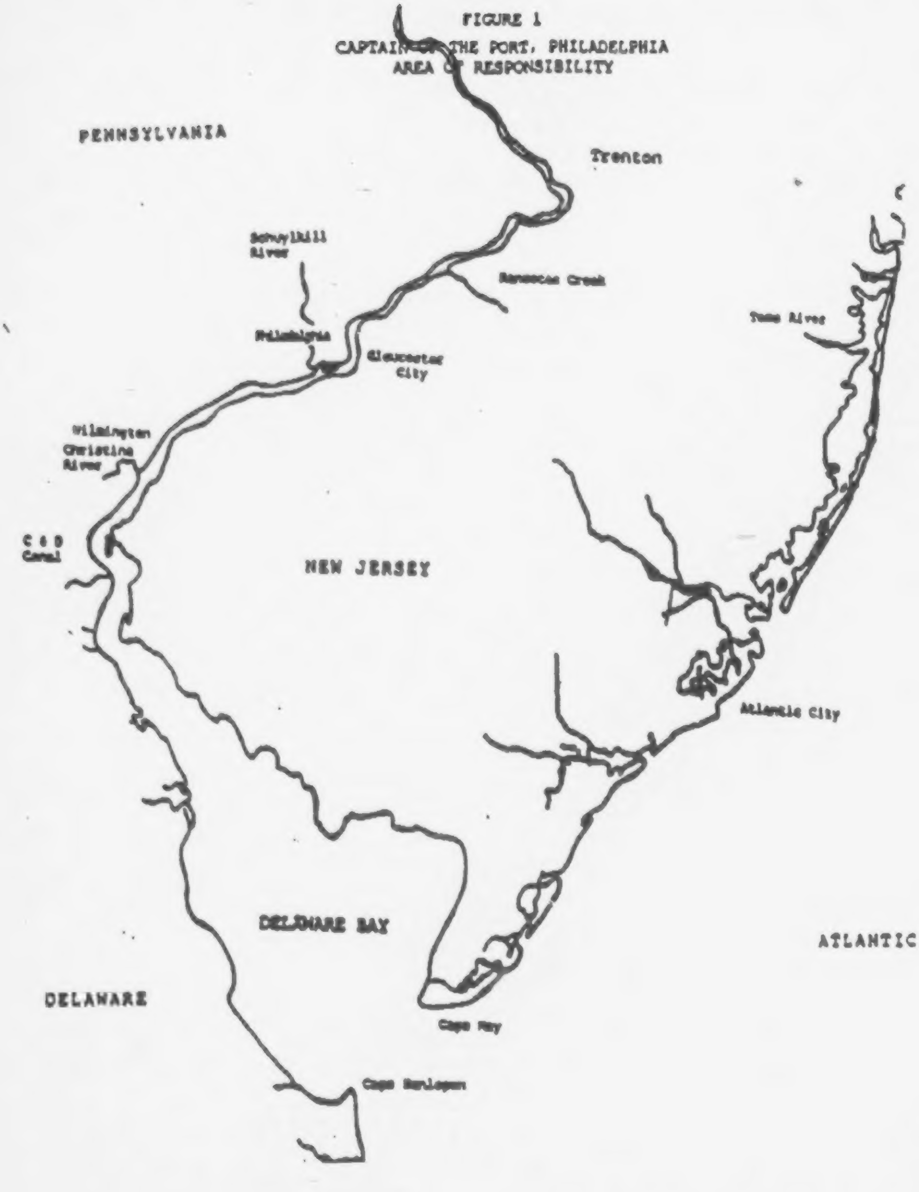

FIGURE 1
CAPTAIN OF THE PORT, PHILADELPHIA
AREA OF RESPONSIBILITY

PREVIOUS MAJOR OIL SPILLS IMPACTING NEW JERSEY

The Grand Eagle

At 0115 hours on September 29, 1985, "The Grand Eagle" carrying 530,000 barrels (20 million plus gallons) of crude oil grounded in the Delaware River near Pedricktown. The spill of over 400,000 gallons of Ninian crude contaminated the river from Chester Island to just below the Delaware Memorial Bridge. The Coast Guard (COTP Philadelphia) took the lead, activated the RRT and the MALRT. Other key agencies called upon were PA DER, DE DNR, US Fish & Wildlife, NOAA, NJSP and EPA Regions 2 and 3. Delaware Bay Coop activated their Skimmer and three private clean up contractors were hired; Underwater Tech, South Jersey Pollution and Mid-Atlantic Ref. Service. The clean up was completed in over 6-8 months, but the case was not closed out until September 1986 due to lengthy environmental studies.

The Intemar Alliance

At 1000 hours on March 21, 1986, "The Intermar Alliance "carrying 80,000 barrels (3,360,000 gallons) of crude oil struck the dock of the British Petroleum Facility at Marcus Hook Pa. The spill of 200,000 gallons contaminated the shore south from Oldmans Point to Helms Cove. Sun Oil accepted responsibility, activated the DBRC and hired two contractors; Underwater Technical and Snow Environmental. USCG assumed an oversight role, activated MALRT & RRT, DEP responded as did EPA Regions 2 & 3, PA DER, DE DNR, NJSP, US Fish & Wildlife Service, NOAA and Tri-State Bird Rescue. Although the river clean-up was smooth, the quality of the cleaning of some beach areas forced extensive litigation and took until September 1988 to complete.

The Viking Osprey

At 1400 hours on September 10, 1986 the Coast Guard discovered a large oil sheen in the vicinity of the Commodore Barry Bridge. The source was identified as "The Viking Osprey", which was in the process of docking at Mobil Oil, and had a 800 bbl/hr below the water line leak. More than 250,000 gallons of light Mexican crude oil came ashore at points from Paulsboro to Eagle Point, NJ. The vessel's owners assumed responsibility, Mobil Oil hired Mid-Atlantic

as its clean-up contractor and the DBRC was activated. The Coast Guard assumed an oversight role, the RRT and the MALRT were activated and the NRT's
Atlantic Strike Team was placed on alert. NJ DEP personnel monitored

the NJ side operation. Underwater Tech, Guardian and Snow Environmental were also hired. Approximately 190,000 gallons were recovered.

Texaco Barge

On January 25, 1989, a Texaco barge maneuvered by the tug "Texaco Tampa" rammed the marine terminal dock at Wilington Delaware, rupturing: 1-10 diesel line"; 1-12" #2 oil line; 1-12" Toluene line and creating a reported discharge of 100,000 gallons of product into the Christina River and Delaware River. Guardian Contractors were hired by Wilmington Terminal. U.S.C.G. monitored the spill and DBRC assisted by mobilizing two mechanized skimmers. End result was that all product was contained on the Delaware side of the river.

Standard Oil of Ohio

At 0500 hours on August 4, 1986 a leak was detected in a 16 inch underground oil product transfer pipeline. The owners of the pipeline, SOHIO, assumed responsibility for the over 200,000 gallons of #2 fuel oil that spilled. The oil flowed into a culvert, through a 20 inch diameter discharge pipe and into the Lawrence Brook, a potable water source. SOHIO hired South Jersey Pollution Control Services as the primary clean-up contractor. In addition, SJPC hired Mid-Atlantic Refinery and Clean Venture as subcontractors. On August 5, at the request of NJ DEP, the EPA agreed to take the role as the lead agency coordinating clean-up activities. Daily surveys of clean-up operations were made by the NJ DEP and Middlesex County Health Department to assist EPA's efforts. By 2230 hours on August 6, an estimated 150,000 gallons of material had been collected from Lawrence Brook and culverts near the source.